

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,155

Wednesday October 26 1983

D 8523 B

Austria ... 15	Denmark ... 15	France ... 15	Germany ... 15	Italy ... 15	Japan ... 15	Netherlands ... 15	Portugal ... 15	Spain ... 15	Sweden ... 15	Switzerland ... 15	UK ... 15	USA ... 15
Belgium ... 15	Canada ... 15	Finland ... 15	Greece ... 15	Ireland ... 15	Israel ... 15	Italy ... 15	Japan ... 15	Netherlands ... 15	Portugal ... 15	Spain ... 15	Sweden ... 15	Switzerland ... 15
Taiwan ... 15	Thailand ... 15	West Germany ... 15	Yugoslavia ... 15

NEWS SUMMARY

GENERAL

Missiles arrive next month

U.S. cruise and Pershing missiles are expected to arrive in Europe towards the end of November, immediately after the Bundestag has held its crucial debate on the issue. According to senior U.S. officials, 32 cruise and nine Pershing 2 missiles are ready to be airlifted from the U.S. to Britain, Italy and West Germany. However, the actual timing of the arrival is giving problems. Page 16.

Car bomb alert

French police and security forces have been alerted to look out for an Italian-registered red Citroën car believed packed with explosives and being driven somewhere in France. Page 2.

Madrid tightens up

Spain's Socialist Government has been forced to tighten its line on terrorism following increasing Basque violence and behind-the-scenes pressure from military leaders. Page 2.

De Lorean delay

The trial of John De Lorean, former car chief, on charges of drug trafficking has been postponed a week while defence lawyers prepare motions for dismissal of all charges. Page 8.

Greece alleges plot

Greece's Prime Minister Andreas Papandreu said there is an international plot based in the U.S. to sabotage the Greek economy and bring down his Government. Page 2.

Ambassador shot

A gunman shot and critically wounded Jordan's ambassador to India as he was walking home to lunch in Delhi's diplomatic quarter. Page 4.

Explosion kills five

Five people died and 16 were injured when a gas explosion ripped through the Royal Dargach Hotel, Aberdeen, Scotland. Page 3.

Berlin match fears

West Berlin is posting 6,000 police around its soccer stadium and another 10,000 through the city to night following threats of neo-Nazi violence when Turkey plays West Germany in the European championship. Page 3.

Soviets 'killed 100s'

Western diplomatic sources in Pakistan said several hundred people were killed earlier this month in a five-day Soviet bombardment of the Afghan village of Istalef, north of Kabul. Page 16.

Heath denies claim

Former UK Premier Edward Heath said there was no truth whatsoever in allegations made in a court case that he had appeared in pornographic photographs. Page 16.

Riot over train

More than 5,000 Sao Paulo commuters, angry because their train was half an hour late, burned a police car, looted a nearby supermarket and hurled stones at three trains in the station. Page 16.

Briefly...

Oleg Bitov, editor of Moscow weekly Literary Gazette, died in Britain. Belgian police seized 30,000 bogus Smurf dolls covered with a paint harmful to children. Page 16.

BUSINESS

France steps up shipyard subsidies

FRENCH Government is planning to inject FFr 650m (\$81.7m) in additional subsidies into the country's shipbuilding industry, following a 50 per cent slump in new orders in 1982. Page 16.

BONN CABINET will make another effort today to rescue the planned merger of the Thyssen and Krupp steel interests. Page 16

WALL STREET: The Dow Jones index closed up 3.46 at 1,252.44. Report, Page 25; full share listings, Pages 26-28

LONDON: FT Industrial Ordinary index gained 3.7 to 689. Government Securities moved higher, reflecting confidence over continuing government spending. Report, Page 29; FT Share Information Service, Pages 30-32

TOKYO: Nikkei Dow index fell 27.39 to 9,232.77. Stock Exchange index rose 0.1 to 676.07. Report, Page 25; leading prices, other exchanges, Page 25

FRANKFURT: Commerzbank index rose 18 to a 23-year high of 1,017.5 on the improvement in prospects for increased share earnings. Report, Page 25; leading prices, other exchanges, Page 25

DOLLAR rose to DM 2.8975 (DM 2.8965) and was unchanged at FFf 7.955 (FFf 7.955). (SwFr 2.1175) and Y232.5 (Y232.5). Its Bank of England trade-weighted index was 126 (126.3). In New York it closed at DM 2.8965; FFf 7.95; SwFr 2.1152 and Y232.36. Page 35

STERLING fell 5 points to \$1.499, was unchanged at DM 3.31 but eased to FFf 11.925 (FFf 11.925). SwFr 3.175 (SwFr 3.175) and Y246.15 (Y246.15). Its trade-weighted was 83.5 (83.6). In New York it closed at \$1.498. Page 35

GOLD rose \$2.5 in London to \$398.525. In Frankfurt it rose \$2.25 to \$398.25 and in Zurich \$4 to \$398.5. In New York the Comex October settlement price was \$397.5 (\$398.3). Page 34

SWEDEN'S Finance Minister announced new taxes on share transactions. Page 17

AIRLINE industry representatives at late meeting in Delhi are considering penalising airlines which practice "ticket discounting". Page 9

NEW ZEALAND electricity workers called off pay dispute after premier Robert Muldoon threatened to withdraw recognition of their union. Page 4

PHILIPPINES central bank imposed indirect control on 11 types of electronics imports to conserve foreign exchange. Page 9

ITALY'S stock exchange watchdog Consob was thrown into turmoil when its chairman and another board member resigned. Page 16

COMPANIES

ELECTROLUX, the Swedish household appliance group, is to sell its Elgion cash register subsidiary to its management for £13m (£13.5m). Page 11

BROKEN HILLS October 31 deadline for its planned \$2.4bn acquisition of Utah International will not be met. Page 19

CITYCORP Australia Holdings reported an 8.1 per cent rise in net profit to A\$17.3m (\$15.9m) for the nine months to September 30. Page 19

EXXON increased third quarter net income by 20.5 per cent to \$1.23bn. Page 16

MERRILL LYNCH, the largest U.S. securities group, suffered a 67 per cent drop in net earnings to \$33.1m in the third quarter. Page 17

U.S. leads invasion of Grenada

BY TONY COZIER IN BRIDGETOWN, BARBADOS

THE CARIBBEAN island of Grenada was invaded early yesterday morning by a force of U.S. Marines and parachute troops, estimated to be about 1,500 strong. The invasion of the island, a former British colony, was backed by about 300 troops from six Caribbean countries, all members of the British Commonwealth. An unidentified American voice, broadcasting from an emergency radio station soon after the landing, said: "Friendly forces from neighbouring Caribbean countries and the United States have arrived in Grenada to protect lives and restore order." Grenada has been ruled by a revolutionary military council since last Wednesday when the Prime Minister Mr Maurice Bishop, three of his cabinet ministers and two trade union leaders were killed by troops in a coup.

Caribbean states urged action, Reagan says

BY REGINALD DALE, U.S. EDITOR, IN WASHINGTON

PRESIDENT Ronald Reagan yesterday said that the 1,900-strong U.S. invasion force had been dispatched to Grenada in response to an urgent, formal request from the island's Caribbean neighbours "to assist in a joint effort to restore order and democracy." Mr Reagan's dramatic early morning announcement stunned a nation still reeling from the impact of Sunday's devastating bomb attack on U.S. marine headquarters in Beirut.

Mr Reagan said that he had agreed to the military takeover for three reasons: to protect innocent lives, including those of about 1,000 Americans on the island; to forestall further chaos; and to assist the restoration of law and order.

The move was nevertheless seen in Washington as equally motivated by the Reagan Administration's desire to take a strong stand against what it sees as the spread of Soviet-inspired Marxism in the Caribbean and Central America. Mr Reagan described the leaders who seized power on the island last week as "bureaucratic thugs."

Mr Eugene Charles, the Prime Minister of neighbouring Dominica, who appeared alongside Mr Reagan, said intelligence data indicated that Moscow had been behind the overthrow of Mr Maurice Bishop, the former prime minister, who died in a confrontation with the military last week. She referred to "movements between Soviet enemies and known activists returning to Grenada after these contacts."

Japan warns Iraq on bombing threat

BY JUREK MARTIN IN TOKYO AND ROGER MATTHEWS IN LONDON

JAPAN yesterday warned Iraq not to carry out its latest threat to bomb the Bandar Khomeini petrochemical complex in south-western Iran.

The Foreign Ministry in Tokyo is taking the threat extremely seriously because it was delivered in Baghdad to the Japanese Embassy, the first time Iraq has used official channels to make such a threat.

The Iraqi chargé d'affaires was then summoned to the Japanese Foreign Ministry in Tokyo. Three Japanese citizens in Tehran are believed to be carrying out preliminary studies under a recent agreement between Iran and Japan designed to lead to a resumption of work on the petrochemical project, which was 85 per cent completed when hit by Iraqi bombers three years ago.

Fighting yesterday in the northern sector of the Iraq-Iran war continued unabated for a sixth successive day, with Iran claiming that it was closing in on the Iraqi town of Penjwin. Iran said it had already captured 270 square miles of Iraqi territory during the attack. Tehran radio said that Iraqi forces themselves had begun to destroy Penjwin in order to begin new propaganda campaigns against Iran, and to justify rocket attacks on Iranian cities.

There is speculation in the Japanese Foreign Ministry that the threat to the Bandar Khomeini complex is part of a new overall strategy of suing for peace by means of threats. Iraq's acquisition of French Super Etendard fighters, equipped to fire Exocet missiles, and the consequent threats to shipping in the Gulf, were being seen in the same vein.

According to this theory, Iraq may feel that Japan has some leverage on Iran, because the Bandar Khomeini complex cannot be reconstructed without Japanese help, and that Japan itself may be vulnerable to pressure because of the heavy financial commitment to the project by Japanese companies, led by Mitsubishi.

The Bandar Khomeini Agreement reached last month between Tokyo and Tehran provides that Iran will bear all future costs for the project.

1970, had supplied most of the technical and manpower needs of the new airport. Reports in Barbados said three of them had been killed and 22 injured in the fighting.

Although the airport is not yet officially opened, its runway is complete and ready to take landings from large jets. Sources in Barbados said it would be used to bring in trucks and equipment from the U.S. naval task force, which is headed by the aircraft carrier U.S.S. Independence.

In addition, reports said 32 military advisers from the Soviet Union had been held.

There was no word of casualties among the landing force, although the Americans in Barbados did reveal that one helicopter had been downed and the pilot injured. Other reports speak of six or seven casualties among the marines.

Earlier, Radio Free Grenada had reported that there was "fierce fighting" between the Grenadian army and the invading force.

Radio stations in Barbados broadcast a few conversations by telephone with residents of St. George's, who stated that the capital was comparatively quiet, although there had been large explosions heard in the downtown area near the Roman Catholic cathedral. The town has a population of 10,000 - the island itself has a population of about 110,000.

The military rulers in Grenada had been expecting the invasion and Radio Free Grenada reported "United States paratroopers with helicopter gunships" had landed at 5.30 a.m.

A frantic announcer on the station called on "all Grenadians to come out and defend our country" and asked "all friendly countries to condemn this act of aggression and immediately come to Grenada's assistance."

One of the station's two frequencies went off the air 35 minutes after the reported time of the landing. The second continued for another hour and a half, broadcasting calls to Grenadians to "fight against the forces of Satan."

The decision to take military action against the revolutionary military council, headed by army chief General Hudson Austin, had been planned here last Friday by the leaders of the Organisation of Eastern Caribbean States - Antigua, Dominica, Montserrat, St. Kitts-Nevis, St. Lucia and St. Vincent.

They had immediate support from the Prime Minister of Barbados, Mr Tom Adams, and the Prime Minister of Jamaica, Mr Edward Seaga.

Mr Seaga, the Jamaican Prime Minister, claimed that 12 Cubans were killed.

The 300 troops from the other Caribbean countries had not been part of the original invasion force, but had been brought in later, the Pentagon said. U.S. forces had detained about 30 Soviet and 50 Cuban troops.

U.S. Steel returns to profit

By Paul Taylor in New York

U.S. STEEL, the biggest of the U.S. steelmakers, yesterday reported an unexpected profit in the third quarter - its first since the start of last year.

The company said the turnaround was attributable to its turnround subsidiary's oil and gas operations, while its steel business continued to show substantial, but reduced, losses.

The steel group, whose shares were suspended ahead of the profit announcement, said it had net earnings of \$52m or 27 cents a share in the third quarter on sales of \$4.6bn, compared with a net loss of \$82m or 88 cents a share on sales of \$4.5bn in the same period last year.

The profit, which came after five consecutive quarterly losses, helped to reduce U.S. Steel's loss in the first nine months to \$178m or \$2.29 a share on sales of \$12.5bn, against a net profit of \$2m on sales of \$14.5bn in the 1982 period.

U.S. Steel said the turnaround resulted from the Government's

immediately came to Grenada's assistance."

One of the station's two frequencies went off the air 35 minutes after the reported time of the landing. The second continued for another hour and a half, broadcasting calls to Grenadians to "fight against the forces of Satan."

The decision to take military action against the revolutionary military council, headed by army chief General Hudson Austin, had been planned here last Friday by the leaders of the Organisation of Eastern Caribbean States - Antigua, Dominica, Montserrat, St. Kitts-Nevis, St. Lucia and St. Vincent.

They had immediate support from the Prime Minister of Barbados, Mr Tom Adams, and the Prime Minister of Jamaica, Mr Edward Seaga.

Mr Seaga, the Jamaican Prime Minister, claimed that 12 Cubans were killed.

The 300 troops from the other Caribbean countries had not been part of the original invasion force, but had been brought in later, the Pentagon said. U.S. forces had detained about 30 Soviet and 50 Cuban troops.

U.S. Steel said the turnaround resulted from the Government's

political standing after the recent upsets and charges of loss of direction, and about the questions raised over U.S.-British relations.

Mrs Thatcher told the Commons yesterday that during the conversation she had stressed Britain's "very considerable doubts about the initiation of action."

The Government learned of the U.S. decision to invade late on Monday night, though earlier that day Sir Geoffrey had told the Commons he had "no reason to think that American military intervention is likely."

The U.S. and the Caribbean states, however, appear to have decided during the weekend on the broad plan to retake the islands.

The Soviet newspaper Pravda yesterday warned the U.S. to resist further involvement in Lebanon and said its policies had been responsible for the bomb attacks.

Soviet fury over U.S. claims, Page 4

Talks on Lebanon role set for Paris

By Reginald Dale in Washington and Roger Matthews in London

THE U.S., France, Italy and Britain are to hold an urgent meeting in Paris tomorrow to discuss the devastating bomb attacks last Sunday on troops of the multinational peace-keeping force in Lebanon.

Mr George Shultz, the U.S. Secretary of State, would be flying to Paris for the meeting with his three European counterparts, U.S. and French officials said yesterday.

The death toll from the bomb attacks on the U.S. and French military headquarters in Beirut continued to rise yesterday as more bodies were dug from the rubble. The U.S. said last night that 207 bodies had been recovered and another 20 or more were still in the rubble. The French put their death toll at 38 with 50 missing.

Sir Geoffrey Howe, the British Foreign Secretary, met briefly with M. Claude Cheysson, the French Foreign Minister, in London yesterday. The three European countries are publicly united on their commitment to maintain their forces in Lebanon but are keen for closer co-ordination with the U.S. on future tactics.

Washington has three main objectives in the talks - to assess how future peace-keeping operations are to be managed, to emphasise the determination of the four countries to maintain their military presence in Beirut, and to demonstrate to American public opinion that the U.S. does not stand alone.

Mr Shultz is reported to have told a private Congressional session on Monday that he would like to discuss the possibility of broadening the peace-keeping force to include troops from other countries. He added that if the U.S. marines were withdrawn "the message will be sent that relying on the Soviet Union pays off and that relying on the U.S. is a fatal mistake."

The speed with which the U.S. has sought to consult at the highest level with its European partners has been interpreted as a sign of the depth of Washington's concern over events in Lebanon. Its previous tendency to act unilaterally contributed to the Europeans' decision a few weeks ago to launch their own complementary peace efforts.

The Soviet newspaper Pravda yesterday warned the U.S. to resist further involvement in Lebanon and said its policies had been responsible for the bomb attacks.

Soviet fury over U.S. claims, Page 4

Thatcher 'opposed military solution'

BY PETER RIDDELL, POLITICAL EDITOR, IN LONDON

MRS MARGARET THATCHER, Britain's Prime Minister, had directly warned President Ronald Reagan against a U.S. invasion of Grenada. However, Sir Geoffrey Howe, UK Foreign Secretary, yesterday landed both himself and the Conservative Government in a major political row by refusing to criticise the U.S. action publicly.

Sir Geoffrey's equivocal stance during 45 minutes of questioning in the House of Commons led to the fiercest opposition attack and the greatest embarrassment for the Government and its supporters since the beginning of the Falklands war 18 months ago.

Later, Conservative MPs were depressed and angry about the further damage to the Government's

Our position as Leader is in keeping with the quality of the blend

By Paul Taylor in New York

U.S. STEEL, the biggest of the U.S. steelmakers, yesterday reported an unexpected profit in the third quarter - its first since the start of last year.

The company said the turnaround was attributable to its turnround subsidiary's oil and gas operations, while its steel business continued to show substantial, but reduced, losses.

The steel group, whose shares were suspended ahead of the profit announcement, said it had net earnings of \$52m or 27 cents a share in the third quarter on sales of \$4.6bn, compared with a net loss of \$82m or 88 cents a share on sales of \$4.5bn in the same period last year.

The profit, which came after five consecutive quarterly losses, helped to reduce U.S. Steel's loss in the first nine months to \$178m or \$2.29 a share on sales of \$12.5bn, against a net profit of \$2m on sales of \$14.5bn in the 1982 period.

U.S. Steel said the turnaround resulted from the Government's



BELL'S
Scotland's
Number One
Quality Scotch

ARTHUR BELL & SONS plc. ESTABLISHED 1825 AND STILL AN INDEPENDENT COMPANY

Europe ... 2, 3	Energy Review ... 12	Brazil and IMF: a battle of wills and wits ... 14	Energy: London launch for crude oil futures ... 12
Companies ... 17	Euro-bonds ... 29	UK consumer spending: the boom that refuses to die ... 15	Management: how American Can packages software ... 6
America ... 8	Euro-options ... 29	W. Germany: power struggle at MAN ... 17	Lex: Burnett & Hallamshire; Gallaher; UK property ... 16
Companies ... 17, 19	Financial Futures ... 35	EEC: chasing the phantom of free internal trade ... 2	Editorial comment: Grenada; UK health service ... 14
Overseas ... 4	Gold ... 36	Airlines: Iata grapples with discount fares ... 9	Selby coalfield: Survey ... Section IV
Companies ... 19	Letters ... 15		
World Trade ... 9	Lex ... 15		
Britain ... 10, 11	Management ... 6		
Companies ... 20-23	Market Monitors ... 26		
	Men and Matters ... 21		
	Mining ... 35		
	Money Markets ... 35		
	New materials ... 34		
	Stock markets - Bouras ... 25, 28		
	Wall Street ... 25-28		
	London ... 25, 29-32		
	Technology ... 5		
	Unit Trusts ... 32, 33		
	Weather ... 16		
Agriculture ... 34			
Appointments ... 34			
Arts - Reviews ... 24			
World Guide ... 24			
Commodities ... 24			
Currencies ... 24			
Editorial comment ... 14			

EUROPEAN NEWS

West Berlin fears
over Turkish match

BY OUR BERLIN CORRESPONDENT

THE WEST Berlin authorities have mounted a massive security effort to prevent right-wing extremists from inciting hatred against the 140,000 Turks living in the city during today's football match between West Germany and Turkey.

Police raided the apartments of 42 neo-Nazis last weekend and confiscated leaflets which called on German fans to "wipe up the stadium seats with the Turkish swine" and worse. Border police are carefully checking motorists entering the city if they are suspected of carrying weapons and of wanting to promote a clash with the Turks.

The police commissioner warned that suspected troublemakers would be taken into protective custody today. About 6,000 West Berlin police have been mobilised to patrol the area around the football stadium and the Turkish district.

The governing mayor of West Berlin, Herr Richard von Weiz-

säcker, plans to attend the game with long-time Turkish residents. He has called for the match to be a "sports festival of friendship." He warned extremist groups not to provoke anti-Turkish riots. The city authorities have plastered underground stations with posters showing smiling Turks and Germans living in harmony.

The authorities are also worried about reports that Turkish groups plan to use the football game to express their opposition to the Turkish military regime. Turkish interpreters for the police will be at the entrances to the stadium to stop any Turks from carrying in placards protesting against the Government in Ankara.

The Turkish press is watching the match closely. Reports of growing discrimination against Turks in West Germany are a frequent news item in Turkey.

Ireland
reduces
deficit

By Brendan Keenan in Dublin

A MARKED improvement in Ireland's balance of payments deficit will prove temporary unless action continues to curb public spending and restore competitiveness, according to the Irish central bank's quarterly report.

The bank says it expects the balance of payments deficit this year to be about £320m (\$384m), equivalent to 2½ per cent of gross national product (GNP). It describes the improvement from 14 per cent of GNP in 1981 as remarkable. However, the bank expects an increase in imports, a rise in oil and commodity prices and accumulating debt servicing charges to put pressure on the balance of payments.

The bank expects inflation to rise to over 11 per cent by the end of the year.

Christian Democrat
Party seeks to
resolve its future

BY JAMES BUXTON IN ROME

THE FUTURE of Italy's long-ruling Christian Democrat Party, which suffered a severe setback in the general elections last June, should be resolved at a congress brought forward to next February.

The key issue will be the position of Sig Ciriaco De Mita, the party secretary, who is held responsible for the election failure by several factions of the party. The Christian Democrat share of the vote fell to 32 per cent, its lowest since the Second World War.

Government on a key part of the 1984 budget, causing a Government defeat.

Sig De Mita, who upheld a policy of economic "rigour" and strongly opposed the Socialists during the general election campaign, proposed an early party congress at a meeting of the party's national council this week.

The outcome of the congress, assuming it goes ahead in February, is still uncertain. But in his address to the national council Sig De Mita was careful to strike a conciliatory note. He renewed the party's support for Sig Craxi, avoided many contentious issues, and blamed many of the problems of the party on the general weakness of Italian institutions.

SOVIET MISSILE PLANS CRITICISED

Romania warns on arms

BY ANTHONY ROBINSON IN LONDON AND LESLIE COLIT IN BERLIN

SOVIET PLANS to start preparations for development of new tactical missiles in East Germany and Czechoslovakia were obliquely criticised by Romanian President Nicolae Ceausescu yesterday. In an interview with the Egyptian newspaper Al-Ahram, Mr Ceausescu called on the Soviet Union to stop deployment of new rockets and even pass... to the reduction of a certain number of existing rockets" and to continue INF talks in Geneva "until the realisation of an agreement."

This is not the first time that President Ceausescu has sounded a discordant note of this kind, despite strong Soviet pressure. Earlier this month, a Soviet military team led by Marshal Alexei Yegorov, chief of the main political administration of the Soviet armed forces spent five days in talks with top Romanian political and military leaders. Meanwhile, in Berlin a member of the unofficial East German peace movement predicted an upsurge of protest in East Germany against

both American and Soviet missile deployments. Last Saturday, nearly 100 East Germans were taken into custody for planning a peace rally on East Berlin's Alexanderplatz timed to coincide with the massive peace rallies taking place in West Germany. In recent months, dozens of anti-nuclear campaigners from Jens, a centre of the East German peace movement, have been stripped of their citizenship and sent to West Germany against their will.

Helsinki talks planning begins

BY ANTHONY ROBINSON IN LONDON

PREPARATORY WORK began yesterday in Helsinki for a long-mooted European disarmament conference scheduled to begin in Stockholm on January 17.

Diplomats from all 35 countries from East and West who participated in the Conference on Security and Co-operation in Europe (CSCE) met to fix an agenda and ground rules for the full conference which will discuss East-West military confidence-building measures.

Diplomats met against the unimpressive background of imminent Nato moves to deploy U.S. cruise and Pershing 2 missiles in Western Europe and countervailing Soviet moves to start preparations for deployment of more accurate and

longer range missiles in East Germany and Czechoslovakia. Agreement in holding the forthcoming Stockholm Conference on Confidence and Security Building Measures and Disarmament in Europe was reached last month at the conclusion of the two-year European Security Conference follow-up meeting in Madrid.

Its aim is to seek agreement from 33 European countries, plus the U.S. and Canada on the extension of confidence-building measures aimed at reducing the risk of a surprise attack by either side in Europe.

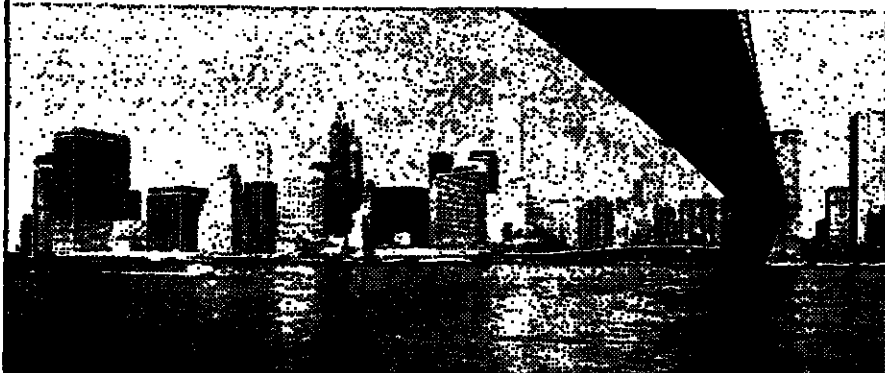
The conference will take as its starting point the military confidence-building measures already

agreed at the original CSCE meeting at Helsinki in 1975.

These provided for each participating state to notify the others of military manoeuvres involving more than 25,000 troops within 250 kilometres of national borders at least 21 days in advance.

Discussion at Stockholm is likely to centre on measures aimed at further reducing the risks of surprise attack by lowering the ceiling on troop involvement.

The conference agenda will not cover arms control or reductions. Western diplomats fear that the Soviet Union will be tempted to use the Stockholm conference as yet another platform from which to attack Nato plans for cruise and Pershing 2 deployment.

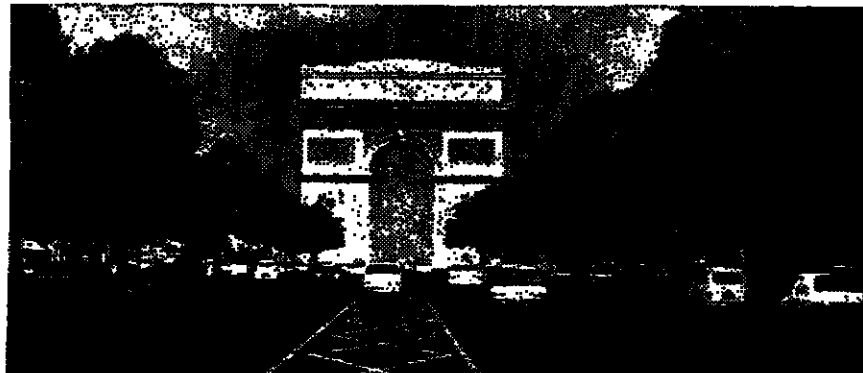
Richard Ellis. A city institution.
But which city?

Richard Ellis, Chartered Surveyors. Established in the City of London, 1773. An unimpeachable pedigree. But there's more to it than that. Commercial property is an investment. An integral part of the fabric of any business. And the techniques and services that Richard Ellis have developed and innovated over the past 210 years have taken the firm to a position of influence that extends far beyond the traditionally accepted role of property advisor.

And far beyond the confines of the Square Mile. Our investment partners anticipated very early the demands of international and multinational companies.

Our development overseas is now an established fact, and we are fluent in all significant currencies.

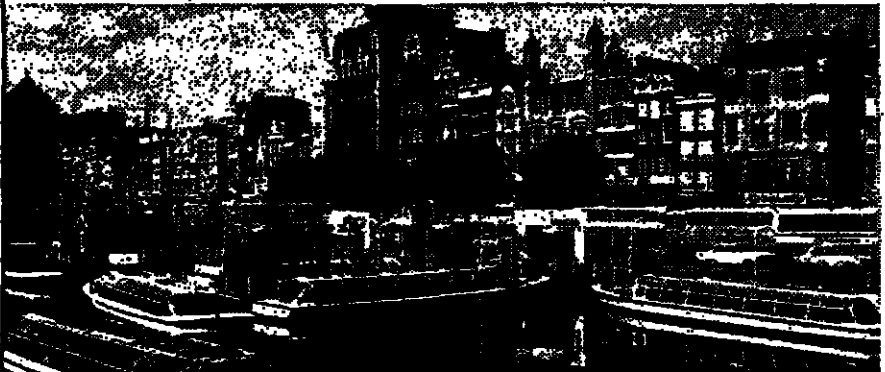
In the United States, for instance, we have under management for property investors, approaching \$1 billion.



Closer to home, our Paris Office is one of that City's biggest Agencies.

Indeed, the recent sale of a building in Place Vendôme for the Bank of America was a Richard Ellis assignment.

In Amsterdam, over the past 10 years, we have advised clients on acquisition and disposal of investment property, with a value in excess of 1 billion florins.



And in Australia, we are currently involved with over AUS \$2.5 billion development projects, including the Rialto Melbourne, Grosvenor Place, Sydney and the new AMP building, Brisbane.

We were among the first to establish a genuine presence in the Far East. Hong Kong is a major international commercial centre. And Richard Ellis provide, in that city, the same level of expertise as we have long done in EC1, 2, 3, and 4.



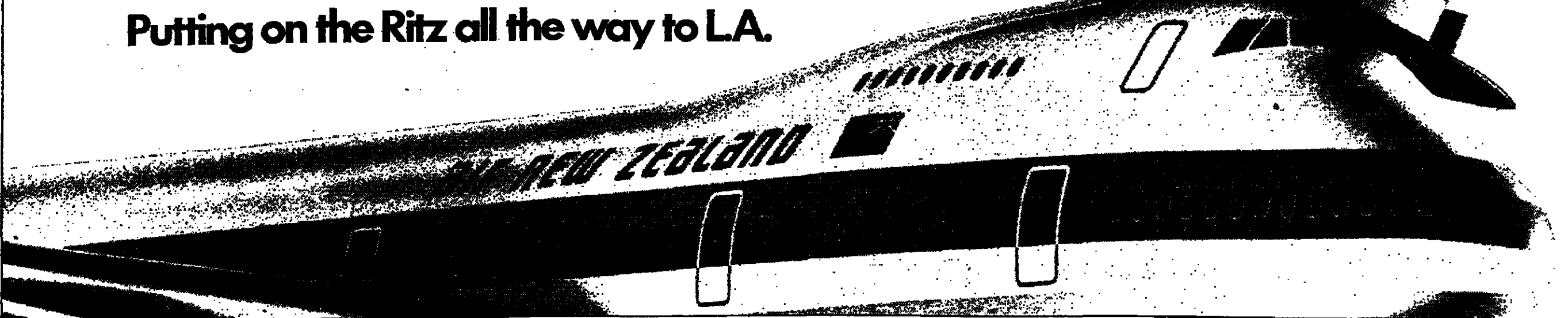
Richard Ellis, Berkeley Square House, W1.
Tel: 01-629 6290.
64 Cornhill, EC3. Tel: 01-283 3090.

Innovation.
A Richard Ellis Tradition.

At our hotel, it's the last thing you'll want to do. Sheraton Skyline ☺
Bed, yes. Bored, never.

BATH ROAD, HAYES, MIDDLESEX. TEL: 01-759 2535

Putting on the Ritz all the way to L.A.



AIR NEW ZEALAND'S 'RITZ OF THE SKIES' SERVICE TO LOS ANGELES AND NEW ZEALAND ONCE AGAIN CAME TOP IN THE LUNN POLY BUSINESS CLASS SURVEY.

OVERSEAS NEWS

AFTERMATH OF BEIRUT BOMBING



Night search: Rescue teams amid the devastation in Beirut

Soviet fury over U.S. claims

BY ROGER MATTHEWS

THE SOVIET UNION has reacted angrily to U.S. suggestions that Syria and Iran may have been implicated in the Beirut bombings which cost the lives of more than 200 American and French troops. The daily newspaper Pravda claimed yesterday that the allegations formed part of a campaign of military provocation directed against Syria. "Syria was not mentioned accidentally," claimed Pravda. "That country is an obstacle in the road of American and Israeli plans in the region."

Invasion of Lebanon last summer, the Soviet Union has not only replaced lost Syrian equipment but has improved the quality of its supplies. The Syrian Government is said to be confident that the Soviet Union would become directly involved if Israel mounted attacks within Syrian territory. Israel television news gave prominence on Monday to what it claimed was the continuing arms build-up in Syria. Pravda argued that the U.S. had kept silent about the fact that "the whole situation in Lebanon is the result of the Israeli invasion which was undertaken with the full support of the Reagan Administration. The appearance of American troops in Lebanon is a continuation of the occupation policy which the Reagan Administration conducts along with

Israel." Although concentrating on the perceived U.S.-Israel threat to Syria, Pravda also said that accusations of Iranian responsibility for the Beirut bombings was part of a larger American design. "It is no surprise when U.S. and British naval units are waiting off the shores of Iran," said the Communist Party daily. Relations between Moscow and Tehran have deteriorated sharply during the past three years but the Soviet Union may now sense an opportunity for an improvement if there is an escalation in the Gulf War. Iran has threatened to shut the Strait of Hormuz if its own oil exports are put in danger. If the U.S. sought to reopen the waterway in defence of its own vital interests, some diplomats believe Iran might have little option but to mend its fences with Moscow.

Jordanian envoy wounded in New Delhi

By Our Middle East Staff

JORDAN'S ambassador to India was shot and seriously wounded in New Delhi yesterday. Mr Mohammed Ali Kourme, a career diplomat who took up his post three months ago, was hit several times by an unidentified gunman firing from close range. Jordanian officials said they could not understand the attack. However, King Hussein of Jordan has been bitterly criticised by more radical Arab states and by Palestinian guerrilla factions for his willingness to co-operate with President Reagan's Middle East peace proposals.

The virtual collapse of Mr Reagan's plan and the deteriorating security situation throughout the Middle East has led to fears that diplomatic efforts may be giving way to more violent tactics. Jordan has also been the most vigorous supporter of Iraq in the three-year war with Iran. King Hussein was the first Arab head of state to visit Baghdad after the outbreak of hostilities and allowed Aqaba port to be used for the transit of Iraqi war supplies. The split within the ranks of al-Fatah, the largest guerrilla faction in the Palestine Liberation Organisation, has brought to greater prominence men who were strongly opposed to bringing King Hussein into negotiations. Israel argues that the Palestinians already have a homeland in what is today Jordan. The last attack on an Arab diplomat in New Delhi was in June, 1982 when a first secretary at the Kuwait Embassy was shot dead in alleged retaliation for the death of Palestinians living in Kuwait.

China plans to use 'economic levers'

BY MARK BAKER IN PEKING

CHINA PLANS to make greater use of selective taxes, interest rates and pricing policies to speed the growth and modernisation of its economy.

The assistant general secretary of the State Council, Mr Yuan Mu, said that wider use of Western-style "economic levers" was important in helping China to achieve its target of quadrupled production by the year 2000. Mr Yuan said China was proceeding with plans to switch state enterprises from the traditional system of profit delivery to more flexible taxation of revenue as a way of stimulating productivity. In addition, taxes would be regulated to restrain production of over-supplied com-

modities and to stimulate production of scarce items. He said a system of "floating" interest rate would be expanded to free up more funds for projects which were favoured by the state.

Mr Yuan said also that there would be more opportunity for market forces to influence prices. The state would relax pricing controls on more commodities and would support higher prices for higher quality. The state decision to increase prices for agricultural products had spurred production and added about \$25bn to the incomes of peasants from 1979 to 1981. Mr Yuan said that China recognised the need to follow the experience of other

countries and promote growth through incentives. "We regard the present economic reforms as a profound revolution. We have to do away with many traditional ideas, customs and forces of influence," he said.

But he added that China had to be careful to adapt foreign economic skills to its own circumstances and not undermine its fundamental Socialist principles. Mr Yuan said that since China began reforming its economy in 1978, the gross output of agriculture had increased by 7.5 per cent a year, while gross industrial output had risen by 7.3 per cent a year. There had been similar improvements in trade and commerce.

He said emphasis would be put on promoting individual enterprise, giving greater management freedom to state-owned enterprises and generally allowing the market to regulate the economy.

China was also experimenting with more flexible labour and wage policies. This involved allowing more enterprises to engage and dismiss workers as they saw fit and the use of "floating" wage structures to reward skill and efficiency. AP-DI reports from Hong Kong: China is considering issuing a freely convertible currency for its special economic zone of Shenzhen which borders Hong Kong, a Hong Kong Communist newspaper said yesterday.

War of nerves persists in Japan

BY JUREK MARTIN IN TOKYO

MR YASUHIRO NAKASONE, the Japanese Prime Minister, will today try to find a formula to break the deadlock in the Japanese Parliament which has prevailed since former Prime Minister Tanaka was convicted in the Lockheed bribery trial two weeks ago. He will do so in consultation with Mr Susumu Nakano, the tough secretary-general of the ruling Liberal Democratic Party, who has spent much of the last fortnight rallying the LDP against the concerted opposition attempt to have Mr Tanaka expelled from the Diet. It is now apparent that the three-cornered confrontation between the LDP establishment, represented by Mr Nakasone and Mr Nakano, its dissident elements, united mostly by distaste for Mr Tanaka, and the opposition, has gone beyond the stage of ritual posturing. It has become, in effect, some-

thing of a war of nerves, which, on all sides, are becoming more tautly stretched. The Government, for example, is finding itself discomfited because its substantial legislative agenda is now being held hostage by the opposition boycott of the Diet. This includes the proposed ¥1.2 trillion (million million) (\$5.2bn) tax cut which constitutes a central part of last week's economic package. It is also becoming embarrassing because it is proving impossible to arrange scheduled speeches to the Diet by Chancellor Kohl of West Germany, who arrives this weekend for an official visit, and President Reagan, due in Tokyo on November 3. But this embarrassment also appears to apply to the opposition whose rare display of unity over the last fortnight could crumble in the face of accusations that it is respon-

sible for presenting a poor image of Japan. For his part, Mr Nakasone has remained aloof from the fray. He has insisted that what happens to Mr Tanaka is a matter for the courts, not parliament, and that he will not be bullied into calling an early general election. He has sent emissaries to Mr Tanaka, though to what end is not clear. Mr Tanaka, however, interpreted their mission as a backdoor attempt by Mr Nakasone to get him to resign from the Diet and, reportedly, enraged, sent out the word through associates that Mr Nakasone should remember who made him Prime Minister. LDP opponents of Mr Nakasone and Mr Tanaka have had a verbal field day, but have not yet broken ranks on the question of the Tanaka expulsion motion, which remains bottled up in a Diet committee.

Liberia seeks \$975m in foreign aid

BERNE—Liberia is negotiating for foreign loans and grants totalling \$975m to finance investment projects and help pay its balance-of-payments deficit. Planning and Economic Affairs Minister Emmanuel Gardiner said yesterday. He said that his government was holding talks this week with 24 countries and 23 international aid organisations, including the World Bank, the International Monetary Fund, and the European Community to try to raise the money. The Liberian economy shrank by 7 per cent last year and growth was also likely to be negative in 1983, the Minister said, adding that it had become impossible to generate sufficient funds domestically to promote investment.

Saudi Arabia reshuffles Cabinet

BY MICHAEL FIELD

THE SAUDI ARABIAN Government has announced two important ministerial changes affecting the portfolios for Industry and Health. Dr Ghazi Alghosbi, who has been Minister of Industry and Electricity since the accession of King Khalid in 1975 and has managed the Health portfolio for the last 12 months, is now to be Minister of Health only. His post at the Ministry of Industry is being taken by Abdul-Aziz Zamil, who has been the managing director of the Saudi Basic Industries Corporation (Sabic), the organisation that holds the state's interests in petrochemical and steel joint-ventures. When Dr Alghosbi arrived at the Ministry of Health last year he took to patrolling the build-

ing early in the morning to see which of his staff were not at their posts. Dr Alghosbi and Mr Zamil have similar backgrounds. Both are from the Nejd (central Arabia), and both belong to well-known trading families with Saudi and Bahraini members in their ranks and commercial interests in both countries. Eight of Mr Zamil's 11 brothers run the highly successful family company, known as the Zamil group. The company has been one of the Kingdom's most enterprising investors in light industrial projects, with interests in air-conditioning manufacture, food processing, pre-engineered steel buildings and aluminium door and window frames.

not signify any change in Government policy. The new Minister is as much associated with his predecessor as with the development of the great industrial cities of Jubail and Yanbu, and even in the last year of low revenues the Government has shown no sign of cancelling or scaling down any of the major projects there. However, the appointment of Dr Alghosbi to work full-time at the Ministry of Health suggests that the Government is anxious to have someone with a reputation for ruthlessness and efficiency to tackle the problem of the Ministry's soaring costs. When Dr Alghosbi arrived at the Ministry of Health last year he took to patrolling the build-

Strike averted at gold mines refinery

By J. D. F. Jones in Johannesburg

A STRIKE by the black workforce at the Rand Refinery in Germiston, which processes the output of South Africa's gold mines, was averted at the last moment late on Monday night when the new National Union of Mineworkers accepted a revised offer from the Chamber of Mines.

The union had carefully gone through all the processes of the disputes machinery and the strike, which was expected to start yesterday, would have been only the second legal strike by black workers in the period of South African labour reform that has followed the Wiehahn Report.

A Chamber of Mines spokesman said yesterday that the final settlement amounted to about 12 per cent on wage rates when account was taken of various service increments and fringe benefits. The mineworkers had originally asked for 40 per cent.

Although white employees at the refinery would have carried on working, there had been concern about the implications of a prolonged strike for the gold mines. It had been made clear that gold would, if necessary, have been released from the Reserve Bank's reserves.

The settlement of the dispute is a further stage in the learning process between the Chamber of Mines and the mineworkers' union. The union, under the leadership of Mr Cyril Ramaphosa, was only recognised by the chamber in June, but has since made rapid progress.

Hardline Muldoon heads off public sector unrest

BY DAI HAYWARD IN WELLINGTON

A HARDENING attitude on the part of Mr Robert Muldoon, the New Zealand Prime Minister, has forced state-employed electricity generating workers to call off a series of disruptive meetings which were due to start yesterday.

When the 1,200 electricity workers, who are members of the Public Services Association (PSA), planned four two-hour meetings which would have cut generating capacity by 25 per cent, Mr Muldoon introduced legislation to remove recognition of the association.

This would have left the 69,000 state employees without a trade union, with no negotiating rights and their assets taken over by the state.

The workers first refused to back down on Monday, and Mr Muldoon announced that he would introduce wide-ranging and emergency provisions allowing

the Government to call in the armed forces, give it the right to jail strikers or trade union leaders and impose censorship. Mr Muldoon also summoned an emergency Cabinet meeting and ministers rushed back to Wellington on what was a public holiday.

He twice rejected an offer from the PSA to scale down the protest. It was all or nothing, and the Government would not allow electricity to be used as an industrial weapon, the Prime Minister said.

He did, however, agree on a face saving formula for the PSA to meet a deputation to "talk without any commitment" on the new procedures for fixing state servants' pay, which sparked the original protest by electricity workers. They believe their pay rates will suffer in comparison with those in private industry.

Uranium go-ahead sought

BY MICHAEL THOMPSON-NOEL IN SYDNEY

THE South Australian State Parliament yesterday demanded the go-ahead for the A\$1.7bn (£1bn) Olympic Dam copper-gold uranium mine at Roxby Downs. The move came despite signs that the Federal Labor Government in Canberra is contemplating another inquiry into the project as a means of placating fierce Left-wing opposition to uranium mining and exports.

Olympic Dam is thought to contain at least 1.2m tonnes of uranium—the world's biggest find—and has been a political football almost since its discovery.

As far as Roxby Downs is concerned, we have had enough inquiries," said Mr John Bannon, South Australia's Labor Prime Minister.

Federal Labor policy calls for a full winding down of the uranium industry, though there is a let-out clause that exempts finds like Olympic Dam, where uranium occurs with other minerals.

The uranium controversy was discussed by the Federal Cabinet yesterday, but no decision is expected until at least next week.

NOTICE TO HOLDERS OF W. R. Grace N.V. BEARER SECURITIES

Copies of the Annual Report of W. R. Grace & Co. can be obtained on request from:

F. J. Brennan
Treasurer
W. R. Grace & Co.
1111 Avenue of the Americas
New York, NY 10036
U.S.A.

BUGGED? THE COUNTER SPY BRIEFCASE

Counter spy briefcase
Direction of electronic waves
A high powered counter electromagnetic waves detector with no physical harm
Intelligence electronic detection
This briefcase is able to detect and locate any electronic waves in the vicinity of the briefcase
The briefcase is able to detect and locate any electronic waves in the vicinity of the briefcase
The briefcase is able to detect and locate any electronic waves in the vicinity of the briefcase
The briefcase is able to detect and locate any electronic waves in the vicinity of the briefcase



American Airlines announce the M23 extension.

Brighton

Gatwick
Acapulco
Albuquerque
Atlanta
Austin
Corpus Christi
Dallas
Denver
Harlingen
Houston
Las Vegas
Little Rock
Los Angeles
Lubbock
Memphis
Mexico City
Midland Odessa
Nashville
New Orleans
Oklahoma City
Orange County
Phoenix
Portland
Reno Tahoe
Salt Lake City
San Antonio
San Diego
San Francisco
Seattle
Tucson
Tulsa

9 Please turn over

These days there is no faster way to get to anywhere in America's South West.

Proceed any day of the week down the M23 to Gatwick (or get the fast train from Victoria).

Get an American Airlines non-stop flight to Dallas, filter through our quick and efficient customs and immigration and take any of the 35 convenient connections to anywhere in the South West from Los Angeles to Oklahoma.

If you stopover en route in Dallas you'll find all of America at your disposal via our unique hub system.

Over 270 flights radiate out of Dallas daily to more than 70 destinations.

It makes flying easier than catching a bus.

Of course, should you start your journey by taking the M4 to Heathrow you may find yourself in a bit of a jam because although many illustrious airlines fly out of Heathrow to the USA, not one of them flies non-stop to Dallas.

For further information: contact your travel agent or ring American Airlines on 01-629 8817.

American Airlines
The all American Airline

TECHNOLOGY

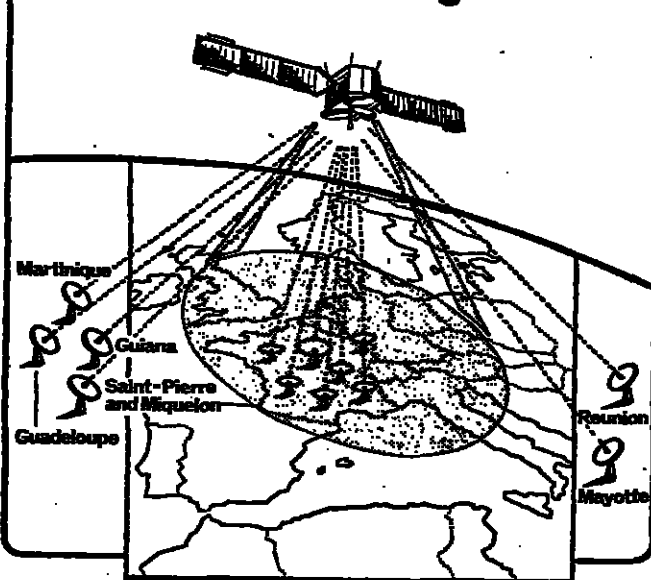
EDITED BY ALAN CANE

SPACE COMMUNICATIONS

France demonstrates satellite system

BY ELAINE WILLIAMS

France's National Telecommunications Satellite Coverage



IN 1984 France will launch its first national satellite called Telecom 1. Today at the International Telecommunications exhibition, Geneva 83, the French telecommunications authority will carry out a series of demonstrations to show the type of services its future satellite will provide.

The experimental Orbital Test Satellite, OTS, will be used in this week's demonstration which will show electronic mail transmission, freeze-time teleconferencing and, broadcasting. These are some of the services which will be provided by Telecom 1 following its launch by the Ariane rocket system. The satellite, and a spare, will provide digital communications within France and telephone links to overseas territories and allow French television broadcasts to be received in these countries.

The area of coverage includes Guiana, Martinique, Guadeloupe, Saint Pierre et Miquelon, Reunion and Mayotte. At the present time the telephone and television services between these countries and France are provided by the Intelsat and Symphonie satellites. Telecom 1 will replace some of these.

The French telecommunications authority says that the main characteristics of the new service is the wide range of data rates from 2,400 bits per second to 2m bits/second for video conferencing. It is hoped that these services will be used by industry and commerce.

As a first stage of the future French video-transmission network, a video channel is to be reserved, a video channel will be reserved for this purpose.

COMPUTER PERIPHERALS

Company start-up

TINY DISKS which can store vast amounts of data and sit inside, rather than alongside a personal computer are fast becoming the rage—California start-up Microcomputer Memories is now giving our own Rodime competition.

Storage of between 6.25 and 12.7 megabytes of data on a unit which is so small that it can fit on to a person's hand, has been made possible by the three and a half inch hard disk which it contains.

Two twin-sided rigid disks with capacity forty fold greater than floppy disks have been squeezed into a unit which is nearly six inches high, four inches wide and just over one unit which is so small that it can fit on to a person's hand, has been made possible by the three and a half inch hard disk which it contains.

We have the drive to handle it all

fluid power products

from Renold distributors worldwide

Renold House, Wythenshawe, Manchester

061-437 5221

RENOLD

Communications

Text and data seminar

A growing number of options are facing the corporate communications manager who is tasked with optimising the use of leased lines and the public networks in terms of voice, data and text transmission, both on-site and between sites.

The integration of voice and data is to be looked at in a one day seminar organised by Oyez Scientific and Technical Services in London on December 6, when some of these options — independent circuits, packet switching, the new digital PABXs for example — will be examined by experts from industry, consultants and British Telecom.

Chairman will be Mr R. Cammash, who looks after telecommunications practice at Arthur D. Little. The venue will be The Rainbow Suite, London, W.8, and the fee is £125. More from Suzanne Mayhew on 01-236 4080.

Lighting

Thorn-EMI to double production

THE SUCCESS of Thorn-EMI Lighting's miniature folded fluorescent tube, the "2D," which was introduced in 1981 and is now being made at the rate of 1m units a year, can be judged by the fact that the company plans to inject £1m in order to double production at the Enfield plant in North London.

The lamp, which uses only 16 watts but produces nearly as much light as a 100 watt filament lamp, is several times more expensive but over the lamp's much longer life considerable savings can be made and Ray Everett, production director, thinks that an increasingly energy-conscious community is beginning to read the message. "The steadily increasing demand more than justifies the heavy capital investment we are putting into the factory," he says.

Advanced production machinery is part of the secret, allowing the unit to be made at high speed and acceptable cost, but the process was not without its problems. For example, the double bend in the half-inch glass tube meant that it had to be given its phosphor coating before it was bent. So special adhesion techniques needed developing before mass manufacture was even contemplated.

To date the 2D has produced £5m of turnover for the company, a third of it in overseas sales. Some 200 manufacturers have designed fittings round it.

BRITISH RAILWAYS LOOKS AT WAYS TO ENTER COMPUTER BUSINESS

B.R. makes computer tracks

BY PAUL WALTON

THE BRITISH Railways Board has begun looking at ways of getting into the computer business. It plans to market its mainframe programming skills and may retail personal computers.

It believes it would get the political backing needed to change the Transport Act, so it could run its very large (£50m-a-year spend) Computing Systems and Services (CSS) division as a commercial operation. A business plan will be presented sometime during 1984. The Board threw open its data processing (dp) contracts two years ago and has forced CSS to compete for work on which it used to have a monopoly.

Mr Otto Benz, head of the CSS division, said it had become both a profit centre and more relevant to the business world:

The five internal BR shops have made a small profit of some £20,000 after 30 months on the sale of about 400 machines.

"On the one hand I welcome competition because it improves CSS, on the other hand I am fighting it for work and for revenue."

A commercialised CSS would become one of the UK's top half dozen computer service companies, overnight matching Logica, Thorn-EMI and Hoskyns with its 750 computer staff.

The Board would become one of only a handful of public sector giants to follow private firms in commercially exploiting computer services primarily developed for internal usage.

The National Coal Board was the first, creating the Compuserve service from its dp services in 1973. British Leyland followed suit several years later, with BL Systems.



British Rail is using the wide experience of computers in train control and design to sell services and systems to business and industry

Mr Benz said that CSS has experience of every facet of computing from the daily operation of seven mainframes for BR, the development of new systems and in the internal retailing of personal computers to departments. But he admitted that it had also lost major projects worth several million pounds to outside competition in the past two years.

The Board's major computerised accounts system is being developed by the services arm of Price Waterhouse, Hoskyns is to automate the Sealink booking service. ICL is bringing computer-aided design and manufacture (CAD/CAM) to British Rail Engineering and is being used for a host of smaller local systems. It is also fighting it out with Wang to supply BR with a major chunk of its office automation.

In the face of competition, CSS has begun to sharpen up. Mr Benz said that in 1981 his group was given the job of setting up five regional "shops" within BR, to sell and support personal computers.

Many other large organisations have made the same move to counteract managers who were buying a disarray of largely incompatible machines out of petty cash.

The five internal BR shops have made a small profit of some £20,000 after 30 months on the sale of some 400 machines including the Superbrain, the ACT Sirius and the IBM Personal Computer.

Both the profit margin and the turnover of these shops is now rising fast. With the possibility that sales might treble, and that the profit margin would rise, nearly £100,000 annually might be made from the internal sale of the machines, as well as the software and peripherals which go with them.

One scheme being canvassed would see the Board taking this operation (in London, Reading, Crewe, Nottingham and Darlington) into the high street, using the extensive shop frontage which BR has in stations and in booking offices.

"This is something which we are thinking about, but there are problems in doing it and it is not really at a serious stage just yet," Mr Benz said. He added that further shops would cost CSS much more than simply making better use of its spare dp capacity.

While BR computer shops are still at the "concept stage," Mr Benz said that the sale of computer time and the programming skills of his staff was under active consideration: "I think that it is much more feasible, because there is less of a conflict between using the resources we have for operational work and more commercially outside BR."

Computer services are an increasingly profitable business, and the success of the NCB's Compuserve provides some measure of how CSS might fare in the open market. Both operations run ICL, IBM and IBM compatible mainframes, having several hundred programmers and operators and a varied diet of dp work from engineering to accounts.

Mr Duncan Black, secretary of Compuserve, agreed that there

was some similarity between the NCB and BR dp operations. He said that his company's £4.7m profit last year was up 15 per cent, on a turnover of some £25m.

A quarter of this work was for external customers, largely buying computer time on a bureau basis. He added that selling software was fast becoming the "dominant" portion of business outside the NCB.

Mr Benz agreed that selling software skills is the most profitable computer service to offer, and said that CSS might skip the declining bureau

"We have more experience than most other organisations in the use of large numbers of microcomputers, for instance, in the development of networked systems."

service and jump straight forward to become a programming house in the mould of Logica.

"We have more experience than most other organisations in the use of large numbers of microcomputers, for instance, in the development of networked systems, in linking them to mainframes, or in tailoring the software to do anything from CAD/CAM to office automation," Mr Benz said.

The final word rests with the Board, which will soon be casting an eye over the CSS business plan aided by its first director of Information Systems and Technology, Mr David Cobbett, recently appointed to oversee computing at BR.

MORE LIVE CONTACTS. FEWER DEAD ENDS.

'That's the difference'



When it comes to developing a new overseas market, few things can save as much time as the right introduction to the right person.

And offering you that, is just part of the Standard Chartered difference.

We're part of the economic life of over 60 countries; so we can be unusually helpful in spotting business opportunities, as well as guiding you through the problems.

And once you've got the business, the difference continues to be just as useful. With 1,900 branches worldwide, we can speed payments very substantially.

With fast communications, we can make effective cash management a reality. With 18 currency dealing centres covering the world 24 hours a day, we can offer you some remarkably professional and competitive dealing.

And with the rest of our services, developed over 130 years' specialisation in financing international trade, we can offer you a practical and profit-oriented approach to overseas business that will match your own.

Discover the difference. Call any Standard Chartered Bank branch for details.



Standard Chartered

BANK PLC

Direct banking, worldwide

Head Office: 10 Clements Lane, London EC4N 7AB.

BANKING SYSTEMS THE SPIRIT OF COMPETITION

Competing in today's challenging financial environment, banks must be able to plan and react quickly. Financial institutions feel it is now vital to offer new products to suit market pressures, to position themselves properly within their chosen markets and to be able to monitor and achieve required profitability. However, traditional computer systems are not providing the flexibility required to enhance or even maintain the competitive edge that these institutions are entitled to demand.

Hogan Systems has recognised the need for performance and flexibility in the future and is introducing a family of revolutionary software products designed to meet the

requirements of banks and other financial institutions preparing for competition in the 80's.

Hogan's software system is a fully integrated solution to large scale financial data processing needs, addressing all areas of loan processing, deposit processing, current account processing, financial modelling, profit maximisation, profitability analysis/forecasting and marketing analysis.

With Hogan Systems, banking services can evolve to compete at the pace demanded by a changing financial world... throughout the world.

**TOMORROW'S SOFTWARE.
HERE TODAY.**

Hogan

SYSTEMS

Chesham House 150 Regent Street London W1R 5FA

Telephone: 01-439 6288

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

How American Can freed managers from the daily grind

Nick Garnett on the impact of a business control system

THE QUESTION is: where should manufacturing companies concentrate their greatest effort? Maurice Glynn, chairman and chief executive of American Can UK subsidiary, has no doubts. "Money is made on the shopfloor. The quality and competitiveness of your manufacturing is where you get the edge."

American Can (UK) is a case study in the way one tool for raising business performance — a comprehensive computerised business control system — has exerted a profound effect on the company from the shopfloor to the upper reaches of executive decision-taking.

Installation of an integrated system encapsulating manufacturing, distribution and finance and run by a very comprehensive software package has permitted the company to introduce, among other things, a crewing arrangement unique in the UK canning industry for one of its shift systems. Some other can companies with computerised manufacturing systems are moving in a similar direction.

It has stripped away from plant managers what Glynn terms "peripheral" jobs which hamper the task for which these managers are paid — making cans — married actual output more closely to production forecasts and freed senior executives from much of the day-to-day grind of production management.

Less surprisingly, perhaps, it has contributed to a drop over the past three years in the amount of raw materials held in stock and in work-in-progress from more than 90 days' worth of production to 63 and a more than 40 per cent cut in white collar staff.

But just as American Can provides an example of how the influence of a computerised business system can cascade all the way down to machine maintenance planning and shop-

floor manning it also underlines that with it comes new problems which also require managing.

American Can moved into new headquarters in Congleton, Cheshire, early last year where it had installed an integrated data system which it had partly developed itself to cover Congleton and the company's four can and one drum manufacturing sites.

The system provides a database on orders, inventories, work in progress and capacity planning through cost and stock control and invoicing right up to how the company reports its finances.

Before this, American Can recognised that it had at least three problems which it believes are common in manufacturing.

One of the most debilitating was the unending clash between the conflicting requirements of sales, production and financial control. The finance director for example wants the smallest possible amount of cash tied up in the business. Production, on the other hand, would like safety fallback levels of raw material stocks and simple long-run manufacturing programmes, while sales wants lots of production of everything at all times.

That kind of conflict leads to many man-hours lost in interminable meetings. It did in American Can.

In many cases which are fortunate enough to have relatively



fully loaded plants, the resulting mess is left for progress chasers to sort out.

At that time in the late 1970s American Can was facing escalating manpower costs and, on the horizon, a need to learn the trick of manufacturing with lower raw material stocks in order to save costs. These pres-

ures were being exacerbated by market overcapacity and distress selling.

The computerised business system goes a long way towards resolving some of these conflicts. Putting it in a simplified way all the facts relevant to manufacturing — order levels, inventory, capacity, machine-

maintenance, downtime and so on — are fed into the system which then computes a manufacturing programme. Apart from emergencies and rapid shifts in the market everyone is expected to stick to the programme. That lessens the opportunity for managers to come out with the classic "that sounds logical but my gut feeling is that we should..."

Glynn hates that phrase. "Gut feeling for things costs you money," he says.

The timing of plant maintenance is fed into the programme and that timing is one of the tasks effectively removed from plant managers. So too is the purchasing of raw materials and inventory controls. What remains is the task of managing those elements of the job which have a direct impact on production — machinery utilisation, tooling changes, labour.

"We tell plant managers that their job is to meet production targets with the highest quality, lowest cost and least scrap," says Glynn. "Our job is to make sure they have everything they need to complete the programme."

American Can now claims to be manufacturing to ± 2 per cent of forecast which it says gives it greater confidence in the way it loads up its plans. For top management that means taking much of the routine production planning out of their lap giving them more time on company direction.

The company's most modern factory at Runcorn, Cheshire, and part of its Grantham factory, have been run with five crews on its four shift system since the beginning of the year. The addition of an extra crew above normal industry practice adds to the plant's headcount but permits the abandonment of costly overtime payments. To run such a crewing system successfully, however, the plant has to operate continuously at peak capacity. American Can says an integrated management database is the only reliable planning tool for preventing a manufacturing programme staggering along through peaks and troughs.

Metal Box, which has also moved into computerised production, is introducing a five crew system at two plants in January, though on a different shift basis from American Can.

One drawback to an integrated business system is that its logic pushes the company into paying its raw material and other suppliers earlier than it used to do in a more manual system.

That means that the company is leaving the company faster than it would otherwise have done but Glynn is hoping to use that as a leverage point when negotiating supply contracts.

Because the system allows the company to compute quickly what influence a change in the manufacturing programme will have on all other facets of its business it also means that the company should be more adept at tampering with production programmes. The business system is in place to do precisely the opposite, however, by removing the need to make the necessary costly and time-consuming switches in production schedules.

At the end of the day computers do not negate the general principle that a company's performance largely rests in the hands of its managers.

Workers fight to control their jobs

WHEAT REASONS do industrial managers have for introducing new microelectronics technology to production lines? Purely economic ones, most would say. Efficiency is improved by reliable computer-controlled machines, lower manning levels, and more consistent quality. The "deskilling" of manual workers, though unfortunate if it occurs, is a by-product.

But is that what they really think? Recent research in West Midlands engineering companies suggests that behind their rationalisations of technical efficiency, many managers also use technology as a weapon in shopfloor politics — to regain control, which they have let slip, over working practices and the pace of output.

Barry Wilkinson, recently of Nottingham University and now lecturer in business administration at the University of Singapore, describes his research in an article in *Industrial Relations Journal* and in a book. He also provides a fascinating insight into the "unintended" and unorganised ways in which workers try to keep control over their work, often well away from the union negotiating table.

At a metal plating company, automation did away with the manual use of chemical levers to "dunk" components into "vats" of time, chrome and aluminium. The process became controlled electronically. The three workers per line were cut to two, and their tasks were reduced to loading and unloading.

The reasons for the change were not purely those of technical efficiency. Management wanted to wrest control over the pace and quality of output from "lazy, unreliable and hostile" workers who took lots of time off work, took long breaks, and worked slowly, leaving components in vats for longer than necessary.

Instead of leaving the electronic control panels on the machines, the company put them in a room where only managers and one or two engineers were allowed. "The planters can not get at them here," the manager told Wilkinson.

The workers fought back. A manual override device was given them for use in the early

stages when the system was being "debugged," but they continued to use it long afterwards and managers had the devil's job trying to stop them. The planters said they could get a better quality finish manually and reduce the scrap rate. They complained that management's standards were shoddy.

A rubber moulding company had a similar problem, but avoided getting its fingers burnt. The next time it introduced new machinery, it had working practices designed in detail by development and process staff in advance, so the system was really a straightaway for full production.

Managers, of course, would argue that these supposedly "political" acts were at root economic. They were needed to be more productive. But Wilkinson contends that there are conflicting versions of efficiency, using the planters' case as an example, and he argues that the unwarranted notion that the choice of technology is politically neutral has helped managers avoid having to negotiate over it.

Some of his case studies show the now-familiar battles between blue and white-collar workers over new equipment. In one machine shop, programme were supposed to do all the programming and editing, and were employed to find the manual workers doing their own unofficial tape-setting on computer-controlled machines.

Wilkinson believes this kind of ingenuity among manual workers shows that their skills can be used in a more humane kind of technology. Machines can be designed for operators to programme: a team at University of Manchester Institute of Science and Technology is working on just this.

But he recognises that management is more likely to adopt even more centralised control systems which threaten the roles of both blue and white-collar workers. One technical computer can control several machine tools simultaneously.

Vol 14 No 2, *Atkitt Education Dept Nottingham University* July 1983.

The *Technology Politics of New Technology*, Wilkinson, 1983.

Brian Groom

... and now foresees the day of the Trifid

of its software through IMI Computing. IMI, through Leyland Systems, has been very successful in selling its manufacturing-orientated software.

Potential sales of software could radically alter the finances of some of these manufacturers. The National Computing Centre says that only some 2 per cent of medium-sized and large UK manufacturers possess comprehensive systems. But American Can UK's Maurice Glynn says: "My horizon is that it will overtake can-

making."

It has a long way to go though. Turnover for American Can (UK), including European operations controlled from Britain, amounts to £100m as against the six software systems (each costing up to £50,000) it sold before setting up Trifid.

Employing 1,400 in Britain and with 20 per cent of the home can market, American Can's margins, like those of other can-makers, have been cut to the bone. The sale price of beer and beverage

cans is no higher than it was three and a half years ago.

In the case of American Can (UK), however, diversification into the selling of its computer software — an enhancement of one originated by SMI, a Chicago-based software company, and sold as a whole or in three separate systems for different business functions — is part of a metamorphosis of its U.S. parent.

The American Can company — based in Greenwich, Connecticut — has forked out

\$700m in the past 18 months on a restructuring which is one of the largest and most rapid in U.S. corporate history.

At the end of 1981, the group obtained 80 per cent of its revenue from the manufacture and sale of packaging materials. It has subsequently sold its interests in forestry products and used the money to improve its can-making operation and expand its financial services and specialist retailing activities.

The group, which employs 38,000 worldwide and had revenue of £1.6bn in the first half of this year now depends on packaging (mainly can-making) for only one-third of its turnover.

The other two thirds are derived equally from financial services and from retailing, which includes mail order and music tape distribution.

Now that it is in the business of selling software packages it will find it ironic that a development party designed to improve efficiency of traditional manufacturing will be used by some companies to reduce their dependence on that manufacturing.

IF ONLY A SEAT ON THE BOARD WAS AS COMFORTABLE.



For a few precious hours, relax in the privacy of our Business Class Cabin. Here, the only merger you'll face is the pleasant one between you and your seat.

Stretch out in your favourite place, by the window or the aisle, reserved at the time your

secretary made the booking. These exclusively designed seats are wider and with more leg room than you'd expect. Some airlines would be pleased to describe this degree of comfort as First Class.

And as you stretch out and unwind, the

toughest decision you'll probably have to make is whether to imbibe a glass of champagne or a whisky sour. Or to have the Fillet of Sole, the Roast Duck or the Filet Mignon.

Then again, you might simply prefer to adjust your special stereo headphones and

choose from eight music channels offering everything from Brahms to Bertram, as you savour a cup of coffee. With our hostesses in sarong kebaya anticipating your needs almost before you ask.

SINGAPORE AIRLINES BUSINESS CLASS

You can expect a longer life. But will it be worth living?



1840
Average life expectancy
40 years.



1870
Average life expectancy
41 years.



1920
Average life expectancy
56 years.



1980
Average life expectancy
70 years.

Source: Office for Population, Censuses and Surveys.

140 years ago, it was a lucky man who lived to see his grandchildren.

Nowadays, you'll probably live to see them happily married.

Much of this change can be attributed to the achievements of medicine.

But there's another side to the coin.

Because we're living longer, diseases of old age are on the increase.

So, too, are stress-related diseases caused by the pressures of modern life.

At Hoechst, we're aware of these problems. More to the point, we're helping to solve them.

Making life worth living.

One area where we've concentrated our efforts is the therapy of cardiovascular diseases.

Our most recent development being a drug that improves the blood flow through the vessels.

It's already making life a lot more bearable for victims of circulatory disorders.

Depression is one of the most common – and least understood – of twentieth century ailments.

We now recognise it's as much a matter of biochemistry as state of mind.

As a result, we've been able to develop new anti-depressants that can actually restore the desire to lead a full and active life.

The price of success.

Discoveries like these require huge resources, both human and financial.

Last year, we spent £156 million on pharmaceuticals research alone.

Any new line of research has only an 8000:1 chance of success.

Currently we employ 13,000 people in fifteen different countries on our research programme.

Working in areas as diverse as health, communications, energy and nutrition.

What they're all trying to do is make life more worth living for everyone.

**We're spending £1 million a day
on a better tomorrow.**

We spend £1 million a day on research to produce better chemicals, pharmaceuticals, fibres, plastics, dyes, agrochemicals, veterinary products, reprographics and many other vital products. For the complete picture, please send for a copy of "Finding New Ways" to Hoechst UK Ltd., Publicity Dept., Salisbury Road, Hounslow, Middx TW4 6JH. Tel: 01-570 7712. Ext: 3366.

Hoechst 

THE INVASION OF GRENADA

Reagan went against Thatcher's advice on invasion

BY IVOR OWEN

PRESIDENT RONALD REAGAN went against the advice given him by Mrs Margaret Thatcher, the British Prime Minister, when he ordered U.S. forces to participate in the invasion of Grenada, the British House of Commons was told yesterday.

It was the PM herself who revealed that in a telephone conversation with the President on Monday she stressed Britain's "very considerable doubts" about the initiation of such an operation.

She told MPs that she had asked the President to "weigh carefully" several points which she had raised before taking any irrevocable decision to act.

The PM stopped short of an outright condemnation of the action taken by the U.S. as did Sir Geoffrey Howe, the Foreign Secretary, who wailed under a barrage of Opposition criticism and some barbed questions from the Government benches.

His clumsy and embarrassed balancing act as he sought to avoid giving a direct answer when repeatedly challenged to say whether Britain approved or disapproved of the U.S. action clearly made his senior Cabinet colleagues and many Tory backbenchers most uncomfortable.

Sir Geoffrey repeatedly emphasised that the need to protect American citizens in Grenada— they outnumber British citizens by five to one—had been the first and foremost reason for the U.S. intervention.

Mr Denis Healey, Labour's "shadow" Foreign Secretary, who protested that President

UNITED NATIONS—Nicaragua yesterday asked for an urgent meeting of the Security Council to consider the United States military action in Grenada. UN official sources said.

They said the council members would meet privately yesterday night. Secretary General Javier Perez de Cuellar in a statement expressed "grave concern" over the landing. He said he was "particularly disturbed over the possibility that the escalation of tensions could further complicate an already complex situation in the region."

His statement was issued after Jeanne Kirkpatrick, the chief U.S. delegate, informed the Secretary General of the American action. Reuter

Reagan had "walked all over" the British PM, led an unremitting onslaught on the Foreign Secretary whose increasingly unhappy performance brought repeated shouts of "resign" from the Opposition benches.

At one point, he admitted not knowing the whereabouts of the British Governor General of Grenada, and his ineffective retort when Mr Andrew Faulds (Lab, Walsley East) dismissed the U.S. Administration as "ignorant businessmen led by a President who is a dangerous cretin" added to the unease on Government benches.

Sir Geoffrey lamely told Mr Faulds that "as a most distinguished actor" himself he was in no position to criticise the

President of the U.S.

Mr Enoch Powell, (Official Ulster Unionist, Down South) heaped further embarrassment on the Government by contending that the U.S. action in Grenada—coming only hours after the Foreign Secretary had told the Commons that he had no reason to think American military intervention was likely—cast fundamental doubts on the value of the Anglo-U.S. alliance.

He urged the PM to learn the lesson that no undertaking which might be offered by the U.S. either as to the use which might be made of nuclear missiles located in Britain or as to the consultations which would precede their use could be relied upon.

Mrs Thatcher insisted that at no time had the U.S. given an undertaking that it would not intervene. She refused to accept that any parallel could be drawn between the events in the Caribbean and the conditions governing the deployment of U.S. nuclear weapons in Britain.

The Prime Minister also underlined the fact that the views of a number of other Caribbean states had "weighed very heavily and conclusively" with the U.S.

She acknowledged that the states in the area "undoubtedly see things in a much different perspective from that which we do." Mrs Thatcher pointed out that some of the states had contributed to the force which had intervened in Grenada.

Anthony Robinson adds: The Soviet news agency Tass



President Reagan announcing the invasion with Dominican Prime Minister Eugenio Charles

attacked the U.S.-led invasion of Grenada as "imperialist intervention" aimed at "putting a stop to the revolutionary process in Grenada and again subordinate it to neo-colonialist rule." It described participation of forces from other Caribbean nations as a "figleaf to cover the U.S. intervention."

In London, Mr George Arbatov, head of Moscow's U.S. and Canada Institute and adviser to the Soviet leadership commented: "Although some fault lies with the Grenadians themselves, the U.S. has taken advantage immediately to pursue its imperialist plans." Mr Arbatov was speaking at a press conference to launch his book "Cold War or détente?"



President Reagan announcing the invasion with Dominican Prime Minister Eugenio Charles

Until now, the Soviet Press has described last week's shooting of Maurice Bishop and other New Jewel Movement leaders and the subsequent Leftist and military take-over as an internal affair to be solved by the Grenadian people.

But an official Government statement issued by Tass revealed the Soviet Government's concern that the latest events in Grenada might precipitate further difficulties for its ally Nicaragua. "The Nicaraguan people are threatened with outright invasion by U.S. forces," the statement said.

Without even mentioning Grenada, the statement added: "The Soviet Government resolutely condemns the aggressive U.S. course with respect to Nicaragua... interference in Nicaraguan affairs must stop."

Meanwhile in Paris, the French Communist Party called the invasion of Grenada "a crime against international law, against the independence of peoples" and said the U.S. was taking advantage of an internal tragedy to impose its regime on a weaker people.

© The European Community yesterday froze its programme of aid to Grenada. The EC Commission said the freeze would halt disbursements and approval of new development projects. In addition, Grenada will be dropped from the itinerary of a group of European development fund officials visiting the Caribbean next month.

At least \$2m remains to be spent in Grenada from a \$3m five-year EEC aid programme ending in 1985.

Total eclipse for Bishop's New Jewel Movement

FOR OVER a year before his execution last week, at the hands of his own army, Mr Maurice Bishop, Grenada's Prime Minister, regularly warned his small nation of 110,000 people that the United States was on the point of invading the island. President Reagan, he believed, wanted to squash the impermanent pretensions of a left-wing enclave in Brazil's back yard.

The warning cry served to rally support for a regime which had by then lost most of the public support it had had when it seized power in March 1979. The external threat also served as a convenient excuse to put off persistent demands for a return to constitutional democracy.

The invasion of Grenada by a mixed force of U.S. troops and units from Grenada's neighbours in Central America—the Caribbean Community—will abruptly halt the People's Revolutionary Government in its tracks.

Grenada is the most southerly of the Windward Islands. It is a 344 sq km hilly island densely covered in tropical rain forest, crisscrossed by steeply rising ridges. It embraces several tiny island dependencies.

More densely inhabited than most of its neighbours, the population pressures have traditionally been eased only by emigration. As much as a third of the population is believed to be resident abroad, mostly in oil-rich Trinidad and Tobago, or else in Britain.

The economy is based heavily on the export of three agricultural crops: coconuts, bananas and nutmegs—the latter giving Grenada its nickname of the Spice Island. Great, the British company, is the monopoly buyer of the banana crop.

After independence from Britain in February, 1974 the island was ruled by the security forces. A considerably more interested in the island's wellbeing, the Queen is still represented in Grenada by a Governor General, Sir Paul Scoon.

The New Jewel Movement of Maurice Bishop and Bernard Coard—a band of left-wing, mainly London-educated idealists who spent some time hiding out in the northern forests—did not need to do much to take over. Their almost bloodless coup was managed through smuggling rifles in old oil drums onto the island.

Under Bishop, Grenada moved rapidly to cement closer ties with Cuba—believed to have been the inspiration behind the take-over. Cuban financial and technical assistance has been extensive, particularly in the connection with the building of a badly needed international airport and in training the country's 1,000 man defence force.

A \$76m airport with its 9,000-foot runway, due to be opened next March, was regarded with grave suspicion in Washington. U.S. officials privately described Grenada as a "strategic aircraft carrier" for Cuba and the Soviet bloc—a charge never convincingly established despite the large embassies both Cuba and the Soviet Union had set up not far from the airport.

Andrew Whitley

First active military adventure for Caricom

By Charles Jones in Kingston, Jamaica

THE INVOLVEMENT of troops from members of the Caribbean Economic Community (Caricom) in yesterday's invasion of Grenada represents the first active military adventure for the 13-member organisation and is likely to profoundly change its future outlook.

The Community has been split on the issue of military intervention, and diplomats in the region say those who have been against the move may reconsider their membership.

The Community was created 10 years ago from what was the Caribbean Free Trade Association. CFTA had been formed five years earlier and comprised the region's English-speaking countries—all former British colonies and some existing colonies—stretching from Belize in Central America through the Caribbean archipelago to Guyana.

In the past decade, the Community has confined itself to fostering trade and functional co-operation between its members. Preferential access is granted for goods traded between members, with trading based on a range of light manufactures such as garments, processed food and industrial chemicals.

The countries of the Community also co-operate in air and sea transportation, meteorology, agriculture, health and education. They adopted a joint approach in trade negotiations with the European Economic Community and, more recently, with the U.S.

The Community has had its internal political differences, but so far these have been contained without threat to membership.

Mr Forbes Burnham, the President of Guyana, has not been regarded favourably by his colleagues because of alleged violations of human rights. Similar criticisms were levelled at Mr Maurice Bishop, the Prime Minister of Grenada, executed last week.

With a population of 4.5m, the community made unsuccessful efforts to include the Dominican Republic and Surinam as its first non-English-speaking members.

The Organisation of Eastern Caribbean States, which made the request for foreign assistance for the invasion of Grenada, which was suspended as a member last week, was formally created last year to give a greater voice in Community affairs to the six smaller islands in the area. These states made the request for assistance because they felt threatened by events in Grenada.

Some members of the OECS signed an agreement eight months ago on military co-operation. They were motivated by the growing militarisation of Grenada as well as by suspected plots to overthrow the Government of Dominica.

Yesterday's invasion will clearly force some members, Guyana in particular, to reconsider their position. The invasion was denounced by President Burnham, who refused over the weekend to join other countries in planning it. Mr Burnham said instead that he would send his troops to protect the integrity of Grenada if there was an invasion by foreign forces.

The leaders of Trinidad and Tobago and the Bahamas also did not support military intervention but are not likely to take any drastic action regarding their membership of the Community.

Caricom members differ over purpose of action

Differences emerged yesterday between members of the 13-nation Caribbean Economic Community (Caricom) and the United States over their interpretation as to the purpose of the invasion of Grenada, Camille James writes.

The Prime Minister of Dominica, Mr Eugenio Charles, chairman of the Organisation of Eastern Caribbean States, said: "We have to ensure that an interim Government is established in Grenada made up of good administrators who can put Grenada back on the path

towards democracy so elections can take place as soon as possible."

Her statement was at odds with President Reagan's explanation that the invasion was intended to protect the 1,100 Americans in Grenada. There is no indication as to how long the multi-national force will remain in Grenada. If it is to clear the way for a civilian government and elections, it will have to remain much longer than the one week which the heads of the U.S. armed forces have suggested.

Countdown to invasion

Feb. 7, 1974—Grenada becomes independent from UK.

March 13, 1979: "People's Revolutionary Army" led by Mr Maurice Bishop takes over power while Prime Minister Sir Eric Gairy is abroad. Two people killed in the coup.

March 23, 1983: Mr Bishop puts armed forces on alert, saying he has discovered U.S.-backed plan for attack on Grenada, Cuba and Nicaragua, exiles operating from an island a few miles away.

Oct. 13: Mr Bishop placed under house arrest.

Oct. 14: Official radio reports Deputy Prime Minister Bernard Coard's resignation because of rumours he had plotted to kill Mr Bishop. But in other reports Mr Coard, a radical hardliner, is said to have taken power.

Oct. 17: General Hudson Austin, the Army chief, says Mr Bishop has been expelled from the ruling New Jewel Movement for refusing to share power with Mr Coard and for having disgraced the revolution. He denies there has been a military takeover.

Oct. 19: Thousands of Mr Bishop's supporters free him from house arrest, demonstrate in front of Army headquarters. Mr Bishop and three ministers, as well as two union leaders, killed by the Army which takes over the Government.

Oct. 20: Cuba condemns killing of Mr Bishop, says it had no part in upheaval but leaves door open for close relations.

Oct. 21: Military rulers say island in danger of attack. U.S. task force of 2,000 marines led by aircraft carrier Independence heads for region for possible evacuation of 1,000 Americans. Whereabouts of Mr Coard remain mysterious.

Oct. 24: Rulers relax curfew, pledge to form civilian Government. U.S. marines arrive in Barbados.

Oct. 25: Grenadian authorities say island under invasion. President Ronald Reagan announces U.S. forces joined by troops of six Caribbean countries had invaded to restore democratic institutions.

Reuter

OTHER AMERICAN NEWS

Feldstein warns of deficit effect

BY STEWART FLEMING IN WASHINGTON

MR MARTIN FELDSTEIN, chairman of the Council of Economic Advisers, warned yesterday that surging U.S. trade deficits are harming important sectors of U.S. industry.

In hearings in Congress, Mr Feldstein said that the U.S. trade deficit in 1983 is likely to be between \$80bn-\$70bn, double the 1982 level of \$36bn. For 1984 Mr Feldstein said the deficit could rise to over \$100bn, reflecting a drop in exports and a large increase in imports.

"Both of these trends are doing substantial damage to

major segments of American industry," he added. The deterioration in the trade balance is primarily due to the rise in the relative value of the dollar compared to the other major currencies of the world, he said.

Citing high real interest rates in the U.S. coupled with investor confidence that U.S. inflation will remain low as a result of the weekend strong dollar and heavy trade deficit, Mr Feldstein said an increase in private savings or a reduction in Budget deficits is the main hope for shifting the dollar's value

Increases in car and housing costs sparked a 0.5 per cent rise in U.S. consumer prices in September, the biggest rise in five months, the Labour Department reported yesterday. The increase is only slightly up on the 0.4 per cent rise in the previous two months.

In the first nine months of the year, the CPI rose at a seasonally-adjusted annual rate of 3.7 per cent, the Department said. In the third quarter, the increase was 5.3 per cent compared with 5.4 per cent in the second quarter.

De Lorean trial 'prejudiced'

BY LOUISE KEMO IN SAN FRANCISCO

THE TRIAL of Mr John De Lorean on charges of drugs trafficking has been postponed while defence lawyers for the former automobile executive prepare motions for dismissal of all charges. The delay and possible dismissal plea came as a result of the weekend broadcast by CBS television news of video tapes showing De Lorean taking delivery of a suitcase of cocaine and his arrest by the FBI.

The De Lorean trial has been scheduled to begin in Los Angeles on November 1. No

new trial date has been set. Granting the trial delay, a Federal Judge in Los Angeles accused CBS News of interfering with the judicial process by airing the FBI surveillance tapes which were to have been used in evidence by the prosecuting U.S. Attorney.

"The CBS interference in that process may have devastating effects," said U.S. District Judge Robert Takasugi. "Justice and the judicial system may have been severely compromised." Lawyers on both sides

of the case have expressed concern that the showing of the tapes will prejudice De Lorean's trial.

The video tapes broadcast by CBS show Mr De Lorean meeting with undercover Federal Bureau of Investigation agents in a Los Angeles hotel room. One of the agents presents De Lorean with a suitcase said to contain cocaine worth \$4.5m (\$3m). Mr De Lorean is heard to say: "This is as good as gold." FBI agents then enter the room and arrest De Lorean.

Mexico reschedules more debt

MEXICO has virtually completed the rescheduling of its \$23bn (\$15m) public sector debt with the signing in New York yesterday of eight separate restructuring agreements covering \$2.95m. William Hall writes from New York.

Yesterday's signing was similar to earlier rescheduling agreements covering \$11.4bn in August and \$8.5bn last month and involves the refinancing of payments falling due between August 23, 1982, and December 31, 1984 into an eight-year loan with a four year grace period. The credit will carry a rate of 11 per cent over the London interbank offered rate of 11 per cent over the prime rate at the lender's option.

Jamaica in IMF row

JAMAICA and the International Monetary Fund are wrangling over whether the island bank meets performance criteria, and is thus eligible for continued drawdowns from a current three-year credit facility of US\$650m. Canute James writes from Kingston.

New Issue
October, 1983

Canada

U.S. \$ 500,000,000

10% Bearer Notes of 1983/1988

This advertisement appears
as a matter of record onlyDeutsche Bank
AktiengesellschaftCredit Suisse First Boston
LimitedOrion Royal Bank
LimitedMerrill Lynch
International & Co.Morgan Stanley
InternationalSalomon Brothers
InternationalSwiss Bank Corporation
International LimitedUnion Bank of Switzerland
(Securities) Limited

Wood Gundy Limited

Amro International
Limited

Banque Nationale de Paris

Nomura International Limited

S.G. Warburg & Co. Ltd.

Algemene Bank Nederland N.V.

Arnhold and S. Bleichroeder, Inc.

Atlantic Capital
CorporationBaden-Württembergische Bank
Aktiengesellschaft
Banca di Roma per la SvizzeraJulius Baer International
Limited
Bank of America International
LimitedBanca del Gottardo
Bank für Gemeinwirtschaft
AktiengesellschaftBank Gutzwiller, Kurz, Bunge (Overseas)
LimitedBank of Tokyo International
Limited

Bank Mees & Hope NV

Banque Générale du Luxembourg S.A.

Bankers Trust International
Limited

Banque Bruxelles Lambert S.A.

Banque de Neufchâtel, Schlumberger, Malet
Banque de l'Union EuropéenneBanque Indosuez
Banque Paribas
Banque WormsBanque Internationale à Luxembourg S.A.
Banque Populaire Suisse S.A. Luxembourg
Barclays Merchant BankBaring Brothers & Co.,
Limited

H. Albert de Bary & Co. N.V.

Bayerische Hypothek- und Wechsel-Bank
AktiengesellschaftBayerische Landesbank
Girozentrale
Berliner Handels- und Frankfurter BankBayerische Vereinsbank
Aktiengesellschaft
Blyth Eastman Paine Webber
International LimitedBell Gouinlock
Limited
Burns Fry
LimitedCazenove & Co.,
LimitedCiticorp International Bank
LimitedChemical Bank International
LimitedCompagnie de Banque
et d'Investissements, CBI
Crédit Industriel d'Alsace et de Lorraine
Crédit du NordContinental Illinois
Limited
Crédit Industriel et Commercial
Créditanstalt-Bankverein
Deutsche BankCommerzbank
Aktiengesellschaft
Crédit Commercial de FranceDai-ichi Kangyo International
LimitedCrédit Lyonnais
Daiwa Europe Limited
Dan norske Creditbank

Dillon, Read Overseas Corporation

Deutsche Girozentrale
— Deutsche Kommunalbank —
Dominion Securities Ames
LimitedDraxel Burnham Lambert
Incorporated
Euromobiliare S.p.A.Eurobank Aktiengesellschaft
GirozentraleEffectenbank-Warburg
AktiengesellschaftEnskilda Securities
Skandinaviska Enskilda Limited

Goldman Sachs International Corp.

European Banking Company
LimitedFirst Chicago
LimitedHessische Landesbank
— Girozentrale —

Antony Gibbs & Sons Ltd.

Girozentrale und Bank der
Österreichischen Sparkassen
AktiengesellschaftIndustriebank von Japan (Deutschland)
AktiengesellschaftHambros Bank
LimitedKöcker, Peabody International
Limited

Kreditbank S.A. Luxembourggoise

Hill Samuel & Co.,
Limited

Kredietbank N.V.

Lévesque, Beaubien Inc.

Istituto Bancario San Paolo di Torino

Manufacturers Hanover
Limited

Metzler & Co. Sohn & Co.

Kreditbank N.V.

Mitsubishi Finance International
LimitedMorgan Grenfell & Co.,
LimitedLehman Brothers Kuhn Loeb
International, Inc.Neabitt, Thomson
LimitedNew Japan Securities Europe
LimitedLloyds International
LimitedNippon Kangyo Kakumaru (Europe)
LimitedNorddeutsche Landesbank
Girozentrale

Merck, Finck & Co.

Pierson, Holding & Pierson N.V.

Pittfield Mackay Ross
Limited

The Nikko Securities Co., (Europe) Ltd.

Richardson Greenfields of Canada (U.K.)
LimitedN.M. Rothschild & Sons
Limited

Sal. Oppenheim jr. & Cie.

J. Henry Schroder Wagg & Co.,
Limited

Schröder, Münchmeyer, Hengst & Co.

Prudential-Bache
SecuritiesSmith Barney, Harris Upham & Co.,
Incorporated

Société Générale de Banque S.A.

Saras International Securities Ltd.

Strauss Turnbull & Co.,
Incorporated

Sumitomo Trust International Ltd.

Singer & Friedlander
Limited

Toronto Dominion International Limited

Trinkaus & Burkhart
J. Vontobel & Co.

Société Séquanaise de Banque

Vereins- und Westbank
AktiengesellschaftWestdeutsche Landesbank
Girozentrale

Swenska Handelsbanken S.A.

M.M. Warburg-Brinckmann, Wirtz & Co.

Yamaichi International (Europe)
Limited

United Overseas Bank SA

Walwyn, Stodgell Cochran Murray Ltd.

Westfalia Bank
Aktiengesellschaft

WORLD TRADE NEWS

World airlines may impose ticket discounting sanctions

By MICHAEL DONNE IN NEW DELHI

THE WORLD'S airline industry, facing losses each year of up to \$1.5bn (£1bn) on "ticket discounting"—the sale of tickets at less than officially prevailing rates—yesterday decided to study the possibility of imposing sanctions on airlines which adopt this practice.

After a long debate at the annual meeting of the International Air Transport Association in New Delhi, at which it was clear that the airlines are far from united on this issue, it was decided to adopt a resolution that would allow airlines to impose sanctions on airlines which adopt this practice.

The resolution, calling on the director-general of the association and its executive committee to "give high priority to the study and implementation of sanctions where this might be possible" against offending airlines, was passed without dissent.

But it was clear that many airline chief executives and chairmen remained either silent or did not dissent because they do not sincerely believe that any resolution in the IATA forum is likely to have any effect.

The problem of ticket discounting is widespread—in the UK it is done through the so-called "bucket shops"—but in other parts of the world through many normal travel agency outlets or even directly by the airlines, with often tacit consent and protection of governments.

Ticket discounting represents the world airline industry's biggest problem in terms of the annual drain on its revenues. The other major problem is "blocked earnings" where countries refuse to allow foreign airlines to send back home the money they earn from ticket sales in those countries.

UK company wins order for Kalahari rail study

By J. D. F. Jones in Johannesburg

THE BUILDING of a 1,400km (£600m) Trans-Kalahari Railway, linking the heart of Central Africa to the Atlantic Ocean, has moved one step closer with the Botswana Government's award of the full feasibility study to a British firm of consultants, Henderson Travers Morgan.

The 1,400km Trans-Kalahari route—or the Trans-Kgalagadi Railway, as it is known here—would be one of the world's last great railway projects.

It could only be justified by the annual export of more than 10m tons of Botswana's coal.

Five international groups, led by Shell Coal, are at present engaged in assessing the coal reserves in the far-east of the country, adjoining South Africa.

Few people in Gaborone believe that the project can be feasible in the present depressed state of the world coal market, but the more optimistic assume that the market will recover in the next decade.

They also argue that a Trans-Kalahari route would help in the development of Botswana's enormous, empty hinterland.

Officials and advisers here agree that the first stage in the exploitation of Botswana's coal must be to export it via the eastern route, through the South African Railways system which terminates at Ellisburg, 100 miles across the border from the coast.

Study of the eastern route has been completed.

Shell Coal and the Botswana Government in July 1982 signed a joint venture agreement allowing two years for feasibility studies of the Kgaswe project (formerly known as Serowe), with another 12-month interval before a final decision on whether to develop a mine, or mines.

The Kgaswe coal could probably all be exported east via South Africa—at perhaps 5m tons a year.

But Amstar, Charbonnages de France, Total and BP are all active in an area south of Kgaswe around Mmamabala, thus encouraging Botswana's hopes that the western route might also one day be feasible—and financeable.

The Henderson Travers Morgan contract, worth about Pula 1m (£625,000) to be paid for by the Botswana Government, will take 15 months.

The task is to assess and cost the construction and also operation of a route to the Atlantic, including a study for a port site at or near Walvis Bay.

This will be just one of the many problems confronting the project.

It has always been assumed that the Trans-Kalahari Railway would link up with the Namibian (South-West African) rail network but this would seem to presuppose a settlement to the long-standing diplomatic dispute over South Africa's presence in Namibia.

To make things even more complicated, Walvis Bay is technically a South African enclave on the coast of Namibia and the South African Government has always discouraged hopes that it might cede the port to an independent Namibia.

However, since no one here believes the railway could be running in less than 10 years, there is still plenty of time for a diplomatic solution.

The more decisive factor is going to be the estimate of the world coal demand in the next decade and the price the fairly low-grade Botswana coal might command.

Along with a wheels factory about to go into production for the Automobile Corporation with technical assistance from GKN of the UK, they also form part of the first stages of the industrialization of the country's expanding automotive industry.

The stations, of 7.5 MW and 4.5 MW, must all be commissioned and running by next March, and F. G. Wilson has taken on around 100 extra workers at its Belfast plant.

Two other Wilson companies are supplying the electrical switchgear and controls and the cooling and silencing systems for the stations, which are being installed on site by the company's engineers.

F. G. Wilson now employs around 500 people with more than 80 per cent of its output being sold outside the EEC.

Counterfeiters are finding the climate has changed, Bob King writes

Why Taipei's fakers are running scared

UNTIL just a few months ago, a dozen small watch and clock shops along Taipei's Linshen North Road had the hottest commodities in town: expertly-crafted copies of high-value watches by companies such as Rolex, Cartier and Piaget.

Foreign visitors were their biggest clients, snapping up \$25 to \$50 copies by the handful from display cases set literally on the sidewalk.

Nowadays, though, Linshen North Road's watchmakers are running scared. They do business from small back-rooms whose doors are cleverly disguised as well-panels or from nondescript houses around the corner.

Display cases, once crammed with hundreds of watches, now contain only a few, packaged in small lots in case the shopkeeper has to bolt through a back door. Some weeks, the shops are shuttered for days on end, a sign that a police raid has taken place somewhere close by.

"I hate these shops—they're giving my country a bad name," remarks an investigator for Taiwan's Ministry of Justice on a stroll through the neighbourhood.

Before Taiwan's authorities decided that counterfeiting was bad for the national image and sought legislation about a year ago to discourage it, the investigator's reaction would likely have been amused indifference.

Pirates would have continued with their lucrative trades, and the only probable penalty would have been a slightly thicker "red envelope," or pay-off, to the local constabulary during sporadic law-and-order campaigns.

But the climate now is different. If pirates have not yet learned that counterfeiting is morally wrong, they have at least discovered that it can be downright risky. And if the tone of official pronouncements indicates anything it is that the

Taiwan has assured the U.S. of its determination to stamp out commercial counterfeiting which has brought complaints from U.S. companies. Mr Pan Chia-cheng, Deputy Director-General of the Board of Foreign Trade said yesterday. Reuter reports from Taipei.

The assurance came during talks between Taiwanese trade officials and a visiting sub-committee of the U.S. House of Representatives, he added.

The sub-committee arrived in Taiwan last week to investigate counterfeit and will report to congress.

Mr Pan said commercial counterfeiting was an international problem and called on all governments to crack down on it.

He stressed that buyers of fake products should also be held responsible for counterfeiting.

Government plans to keep the heat on this time. Take editorials in the local English-language Press—which generally reflect prevailing Government policy—for instance. A couple of years ago, the papers were hedging their bets, saying, yes, counterfeiting was wrong, but that moral issues ought to be weighed against the amount of foreign exchange exports of fakes earned for the country. One editorial even went so far as to say that stopping counterfeiting could have a serious effect on Taiwan's export trade.

Nowadays, though, no one invokes the flag in defense of fakery. Quite the opposite: the editorial pages now brand counterfeiting "a national disgrace." Mr Y. T. Chao, Taiwan's Economics Minister, recently told the legislature that counterfeiting is one of the most serious problems facing Taiwan's industry. Taiwan, earlier this year,



Mr Yao-tung Chao

passed a toughened revision of its trademark law that ensures that convicted counterfeiters will have to serve time in jail, and a similar measure covering copyright is now before the legislature.

These pronouncements and measures indicate that the message has penetrated official ranks and that, if strong enforcement action is not yet the order of the day, strong intentions are.

But there is also strong resentment here over Taiwan's being singled out as the "counterfeiting capital of the world." Indeed, one could get the impression from the media and various parliamentary bodies in the developed world that Taiwan has somehow cornered the market on piracy, despite the flood of fakes from other parts of the Orient and even from within developed countries themselves.

It is Government's task to put into action the new anti-counterfeiting consensus. But the Taiwanese business community also faces a task that will require a radical re-ordering of thought. Before they can convince others that Taiwan produces more than cheap, rough-cut merchandise, they must first convince themselves of the worth of their own creative efforts.

That latter task may prove to be the most difficult part of all.

Philippines imposes electronics controls

By Our Manila Correspondent

The Philippines Central Bank yesterday imposed indirect control on importation of 11 categories of electronics products in order, it said, to help conserve foreign exchange and, protect companies taking part in the Government-sponsored progressive electronics manufacturing programme.

Under Enabling Circular 956, importation of such products must have prior certification of the Ministry of Trade and Industry, the programme's regulatory body.

The International Monetary Fund and the World Bank, which have extended balance of payments deficit-financing assistance to the Philippines, are known to stress freer flow of trade. This is presumably why the Philippines Central Bank has opted for a non-monetary control device.

The following are included in the prior-certification requirement: radio-broadcast receivers, designed or adapted for fitting to motor vehicles (including receivers incorporating sound recorders or reproducers); radio-broadcast receivers, portable (including receivers incorporating sound recorders or reproducers); assembled or completely knocked-down, without cabinets.

China-Hungary talks

CHINA AND Hungary have begun negotiations on expanding their trade, technological transfers and economic co-operation, Mark Baker reports from Peking.

It is not clear in what specific areas the co-operation would take place. But China has shown interest in gaining Hungarian equipment and expertise.

Whose finger will be on our button?

The entire British telephone system is designed to convert into an emergency communications network in times of national crisis or war. British Telecom is also involved in other Top Secret defence activities.

But the Government plans to sell off British Telecom to private and foreign investors. It has already approached the Japanese and Americans. The larger shareholders will be able to nominate directors, who would have access to confidential information.

The Japanese were amazed to be asked, because Japanese law forbids the sale of their own telecommunications system—for security reasons.

Parliament is discussing the Government's sell-off plans now. Will they allow yet another potential security risk to slip through?

A large majority of British Telecom staff and management, plus all the major opposition parties, say:

NO TO PRIVATISATION OF BRITISH TELECOM

British Telecommunications Unions Committee, 14/15 Bridgewater Square, London EC2Y 8BS

Pakistan gears up for automotive industry boom

By JOHN ELLIOTT IN KARACHI

PAKISTAN'S first large-scale foundry designed specifically to make castings for the rapidly growing automotive industry, is to be built soon near Karachi by the Government-owned Pakistan Automobile Corporation.

The castings will be used for Suzuki 800cc cars and for Massey Ferguson and Fiat tractors produced by the corporation.

Assembly of Suzuki vehicles, which are also to be produced next month in India by an entirely separate corporation, started a year ago. Some 800 vehicles are being assembled a month and the target is 1,800 a month by the middle of next year.

Locally, manufacturing is expected to start early next year after a joint company has been set up by Suzuki and the corporation. Royalties to be paid by the corporation to Suzuki are taking longer than expected to agree and this is delaying the start of the local manufacture.

The new foundry is expected to cost about \$10m (£6m) and was given approval by the executive committee of the Government's National Economic Council at the weekend.

The foundry is expected to be in production within two years. By that time the Government-owned steelworks now being built with Russian help at Pipri outside Karachi should be providing sufficient output to meet requirements for about

6,000 tonnes of castings a year. This project follows another foundry development in the private sector by the Habib family group of Karachi. Called the Baluchistan Foundry, Habib's development is in trial production.

It is costing about \$8m and will produce malleable iron and other castings for the automotive, defence equipment, and pipe-fitting industries.

Both projects are employing British consultants. Foundry Management Development is working for the automobile corporation which will soon be inviting world-wide tenders for equipment costing some \$5m.

\$5m covered by an Asian Development Bank loan. Kenneth Evans is working for Habib, which has mainly used European machinery.

The projects are significant because of the low level of Pakistan's industrialisation.

They will form part of a series of downstream developments from the Pipri steelworks which is also expected to feed a large-diameter pipe plant and a wire rod factory now being planned by two other Karachi companies, Crescent and Ashwari.

Along with a wheels factory about to go into production for the Automobile Corporation with technical assistance from GKN of the UK, they also form part of the first stages of the industrialization of the country's expanding automotive industry.

THIS YEAR, PLEASE GIVE A LITTLE MORE



Mid-East power stations order for Belfast

By Brendan Keenan in Dublin

A BELFAST engineering company, which has carved a niche for itself in the Middle East, has won a \$10m order to supply small power stations in the region.

F. G. Wilson has grown in 10 years to one of Europe's leading manufacturers of power generating equipment. The present order will supply nine stations to various German, French and U.S. main contractors to provide power for facilities in remote areas.

The stations, of 7.5 MW and 4.5 MW, must all be commissioned and running by next March, and F. G. Wilson has taken on around 100 extra workers at its Belfast plant.

Two other Wilson companies are supplying the electrical switchgear and controls and the cooling and silencing systems for the stations, which are being installed on site by the company's engineers.

F. G. Wilson now employs around 500 people with more than 80 per cent of its output being sold outside the EEC.

UK NEWS

Former
Rumasa
chief given
guaranteesBy Raymond Hughes,
Law Courts Correspondent

BANK guarantees totalling £25m have finally been provided for the protection of Sr José María Ruiz-Mateos, former head of the expropriated Spanish conglomerate, Rumasa.

They will indemnify Sr Ruiz-Mateos against any financial loss he may be held to have suffered if the Spanish courts eventually rule that the expropriation last February was invalid.

Provision of the guarantees was part of an agreement reached in July to enable a dispute over the ownership of the trademarks in Dry Sack cherry - which are valued at £25m - to be adjourned until it is fully tried in the High Court.

The Business English subsidiary, Williams and Humbert, has challenged the validity of a pre-expropriation arrangement by which the trademarks were transferred from it to W & H Trade Marks (Jersey), a Channel Islands company controlled by Sr Ruiz-Mateos and members of his family.

Problems arose over the provision of counter-indemnities for the banks that were being asked to provide the guarantees. Sr Ruiz-Mateos insisted that they should not be given by banks associated with Rumasa on the ground that, were he to succeed in the litigation and regain control of Rumasa, his compensation would ultimately be paid from within the group.

Banco Exterior, the eternal arm of the Bank of Spain, has now given a £24.3m guarantee and Barclays Bank a £700,000 guarantee backed by Banco Exterior. In each case, it has been accepted that Banco Exterior will not be able to look to any Rumasa bank for indemnity in the event of the expropriation being declared invalid.

The Spanish Constitutional Court is expected to rule next month on the validity of the expropriation.

Hugin managers to pay
£13m for their company

BY CHARLES BATCHELOR IN Eindhoven

ELECTROLUX, the Swedish household appliance group, is to sell the Hugin cash register subsidiary to its management in a £13m deal which will be funded largely by a group of British institutional investors.

Hugin's management, led by its group chief executive, Mr David Pope, a 44-year-old Englishman, will take up about 14 per cent of the share placement. The company has already held talks with about 30 UK institutions with a view to each of them taking up a maximum of 7 per cent of the 500,000 shares to be placed at £26 each. Hugin plans to go for a listing on the London Stock Exchange next year.

Hugin's 1981-led management turned a 1981 pre-tax loss of £1.42m, before exceptional items, into a £1.34m profit last year and is projecting profits of at least £2m this year and £2.9m next year.

Hugin makes electronic cash registers and point-of-sale systems -

designed for retail outlets with between three and 10 checkouts - and sees its main market as the larger food and general retail stores.

It expects to achieve sales of £28.2m this year with 25 per cent of turnover in the UK and 25 per cent in Sweden. It has marketing companies in 10 countries and distributors in more than 50 others. Turnover of £38.6m is forecast for next year.

Electrolux bought Hugin from the Swedish Co-operative Union and Wholesale Society in 1981 when the group was making large losses through an unsuccessful diversification programme.

Mr Pope said: "They agreed to allow the management to become involved in the company if it was successful and was sold off. We turned Hugin round by going only for major customers and by putting the right price on our products and then taking them to cost-effective manufacturers."

"In 1980 we had 12 subsidiaries, nine of which were making losses. This year we will have 10 all making profits. We plan to diversify into integrated products such as weighing machines and hand-held terminals."

Hugin designs and markets its equipment and systems but sub-contracts all manufacturing to outside companies in Sweden and Japan using tooling owned by Hugin. However, its most sophisticated system, the Databecker, is made by NSC, a U.S. group, and sold under licence by Hugin.

Hugin will move its head office to London but for the time being will leave its administration and accounting in Stockholm.

Hambros Bank is arranging the placing of the shares and £450,000 worth of loan stock through stockbrokers Laing and Crickshank. The net proceeds will be £12.9m. Applications close on November 11.

JAPANESE PHOTOCOPIER PLANT FOR BRITAIN

Ricoh reverses a trend

BY JASON CRISP

THE DECISION of Ricoh, Japan's largest producer of photocopiers, to set up manufacturing operation in the UK, represents a small but significant change in a trend.

For powerful competition from Japanese companies has ended much of Europe's photocopier production. More and more copiers are made in Japan, although many of them still bear the label of European companies.

Ricoh's move to manufacture at Telford, in the West Midlands, is beginning modestly. Initially it is spending £5m to build a plant to make and recondition photocopier drums which will be replaced parts for its copiers in Europe. It will also make bottles of dry toner - the chemical which forms the image on the photocopy.

Investment is expected to rise over three years to about £15m, and the company will employ about 170 people producing 2m bottles of toner and 150,000 drums. Mr Hiroshi Hamada, president, said Ricoh might eventually assemble plain

paper copiers in the UK. But the economies of scale and the strength of the Japanese component industry meant that the bulk of manufacture was likely to remain in Japan.

Even Xerox, still the world's largest photocopier company, has its small, low-cost machines made in Japan by Fuji-Xerox, the joint venture between Rank Xerox and Fuji.

The battle for the world photocopier markets - worth more than \$22bn last year - has increasingly become a two-sided fight between Xerox, Rank Xerox and Fuji Xerox on one hand and a number of Japanese companies such as Ricoh, Canon, Minolta and Sharp on the other.

Xerox has been losing market share in plain paper copiers for the past 10 years since the Japanese found a way round its patents. The Japanese attack began with high volumes of low priced copiers sold through dealerships. Xerox concentrated on the top of the range sold through its large (and expensive) direct sales force. The rapid fall in copier prices and a move up market

by the Japanese companies forced major changes in the Xerox companies.

Xerox has made major cuts in production costs to try to match the Japanese, including redundancies of more than 12,000 in its worldwide workforce of 120,000. Earlier this year it had its biggest new product launch with the Series 10, which replaced almost the entire range below the most expensive machines. The Series 10 has, for the time being, halted Xerox's decline in market share.

Ricoh is the largest manufacturer of photocopiers measured by the number of machines. Xerox's revenues are much greater because of its large installed base and its dominance at the expensive - and profitable - top end of the range where its only competitors are IBM and Kodak.

In the past two years Ricoh has been suffering from falling profits. In the financial year to March 1983 it had a net income of \$42m on sales of \$1.6bn.

Gold mining companies managed by

Golden Dumps
(PROPRIETARY) LIMITED

Reports of the directors for the quarter ended 30 September 1983

CONSOLIDATED MODDERFONTEIN
MINES LIMITED(Incorporated in the Republic of South Africa)
Issued share capital: R1 072 000

Divided into 21 440 000 ordinary shares of 5 cents each

	Quarter ended 30.9.1983	30.6.1983
OPERATING RESULTS		
Underground		
Ore milled - tons	86 342	70 183
Gold recovered - kilograms	278.4	150.0
Yield - grams per ton milled	4.20	2.14
Revenue - per ton milled	R81.20	R32.28
Working costs - per ton milled	R50.00	R45.58
Working profit/loss - per ton milled	R11.20	R(13.30)
Revenue received - per kilogram	R14 583	R15 059
Working costs - per kilogram	R11 915	R21 311
Surface material		
Sand treated - tons	2 648	2 311
Gold recovered - kilograms	4.4	3.4
Yield - grams per ton treated	1.64	1.47
FINANCIAL RESULTS (R000)		
Underground		
Revenue from gold and silver	4 089	2 288
Working costs	3 317	3 197
Working profit/loss	772	(909)
Surface material profit	25	35
Sundry revenue	428	129
Net interest received	(86)	(76)
Net profit/loss	944	(682)
Capital expenditure	519	958
Available profit/loss	425	(1 650)

DEVELOPMENT		
North-East Prospect Shaft - Black Reef		
Advanced - metres	587	475
Sampled - metres	220	324
Payable - metres	82	52
Channel width - centimetres	16	24
Average value - grams per ton	173.9	477.8
Centimetre grams per ton	2 815	11 462
No. 14 Shaft - Kimberley Reef		
Advanced - metres	1 447	1 248
Sampled - metres	622	508
Payable - metres	46	62
Channel width - centimetres	108	184
Average value - grams per ton	6.4	3.2
Centimetre grams per ton	694	708

MINING OPERATIONS
An increase in stope tonnage from the North-East Prospect Shaft, together with improved grades at No. 14 Shaft, resulted in a significant increase in the yield from underground sources.
In respect of the North-East Prospect Shaft the payability of ore developed improved from 18% in the June quarter to 25% in the present quarter. Shareholders are cautioned, however, that the full extent of the high grade ore reserved cannot be quantified at this time. However, prospecting development is proceeding with encouraging results so far.
Unit working costs were adversely affected by the lower throughput, annual salary and wage increases and major repairs to plant which were carried out during the quarter.

CAPITAL EXPENDITURE
The unapportioned balance of expenditure authorised by the Board at 30 September 1983 was R2 727 000.

20 October 1983

T. L. GIBBS Directors

L. C. FOURIE Directors

SOUTH ROODEPOORT MAIN REEF
AREAS LIMITED

(Incorporated in the Republic of South Africa)

Issued share capital: R5 600 482

Divided into 1 152 715 ordinary shares of 56 cents each
8 438 145 10% automatically convertible participating cumulative preference shares of 56 cents each

	Quarter ended 30.9.1983	30.6.1983
OPERATING RESULTS		
Ore milled - tons	48 283	48 178
Gold recovered - kilograms	164.9	201.8
Yield - grams per ton milled	3.58	4.17
Revenue - per ton milled	R54.08	R64.45
Working costs - per ton milled	R60.30	R58.45
Working profit/loss - per ton milled	(6.22)	5.90
Revenue received - per kilogram	R15 422	R14 931
Working costs - per kilogram	R18 931	R13 373
FINANCIAL RESULTS (R000)		
Revenue from gold and silver	2 503	2 976
Working costs	2 791	2 698
Working profit/loss	(288)	277
Sundry revenue	55	51
Dividends received	97	-
Operating profit/loss	(136)	328
Net interest received	51	72
Net profit/loss	(85)	400
Capital expenditure	645	890
Available profit/loss	(729)	(490)

DEVELOPMENT		
Ventersdorp Contact Reef		
Advanced - metres	868	1 184
Sampled - metres	116	360
Payable - metres	54	122
Channel width - centimetres	79	79
Average value - grams per ton	19.2	18.3
Centimetre grams per ton	1 517	1 447
Kimberley Reef		
Advanced - metres	945	878
Sampled - metres	38	56
Payable - metres	28	24
Channel width - centimetres	214	222
Average value - grams per ton	5.9	5.1
Centimetre grams per ton	1 268	1 790

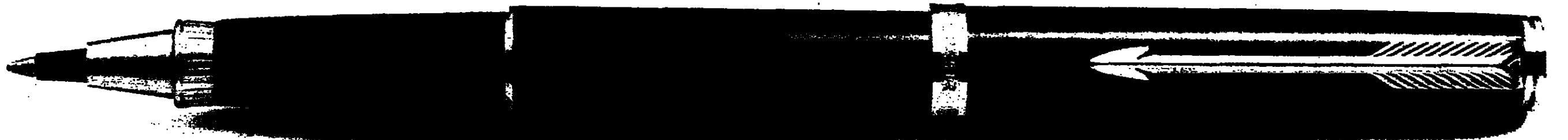
MINING OPERATIONS
The decrease in yield was attributable to a temporary drop in the grade of available stope blocks at Gaurt Shaft, and particularly a delay in bringing the K8E5 stope into full production. However, this situation has improved and an increase in yield is presently evident. The grade of ore from Sakon Shaft continues to be satisfactory.
The increase in working costs was due partly to annual wage and salary increases.

CAPITAL EXPENDITURE
The unexpended balance of capital expenditure authorised by the Board at 30 September 1983 was R1 074 000, to be expended mainly on development.

20 October 1983

H. B. MILLER Directors

L. C. FOURIE Directors



This pen took 2,000 years to perfect. Its ink took twice as long.

"Ah!", a Chinese connoisseur examining our Premier Laque Roller Ball might rapturously exclaim, "pure vegetable laque!"

An oddly prosaic response to such a beautiful finish. Unless you know your Chinese history.

The pure laque finish was first evolved by craftsmen of China's Han dynasty in the 2nd century BC.

Our method is descended directly from theirs. We use nothing but authentic Chinese laque, applying as many coats as they did.

Even the gold flecks in the depths of our laque finish are still carefully placed there by hand.

Indeed the pen has a brilliance that Han craftsmen considered the epitome of their art.

But if they admired its finish, they would have been astonished by the perfection of the Roller Ball's writing.



Writing inks have been made since 3,500 BC from all sorts of unlikely materials.

The Chinese and Egyptians had been experimenting with different writing inks since at least 3,500 BC.

They considered themselves experts.

One Chinese master insisted that only the lamp-black of peach kernels be used in ink-making.

However, writing with such inks was slow, laborious work.

The monks of the middle ages congratulated themselves on having learned to make liquid ink from the tannin in oak galls.

But their inks dried slowly and faded fast.

More recently, some believed perfection had at last been reached by our free-flowing fountain-pen Quink.

But the Laque Roller Ball uses ink many times finer than the finest fountain-pen ink.

We filter it molecule by molecule, until it contains no particle larger than one micron, or one millionth of a metre.

When we invented our Roller Ball, dyes fine enough to be used in its ink simply did not exist. So we invented those too.

Our black Roller Ball ink is blended from four separate dyes: blue, violet, yellow and orange.

While greeny-blue and violet dyes make our blue truly royal.

The Laque Roller Ball glides smoothly across paper, leaving wet, glowing words that quickly dry.

The last words, you might say, in the history of writing. From the last word in pen and ink:

 **PARKER**

FINANCIAL TIMES FILM SERVICE

20 Supersize prints for £2.25

Now 30% Bigger Than Ordinary Enprints

TOP QUALITY

All prints will be borderless, Supersize Superprints, round cornered and hi-definition sheer.

FAST SERVICE

On receipt of the films at the laboratory, all Kodachrome II 110, 126 & 35mm films will be processed in 48 hours. Other film makes and reprints can be processed but are not covered by the 48 hour guarantee and so take longer.

Please allow for variations in the postal service and the fact that there is no weekend working in the laboratory. Films should be returned in approximately 7-10 days.

Reprint prices are available on request. We do not accept C22, sub miniature, Minolta or black and white film.

COMPETITIVE PRICE

developing, postage and packing at 85p per film plus a printing charge of 7p per print.

Prints are returned by first class post to your home, and full credit is given for negatives that are not technically printable.

No. of exposures	FTS Price
12	£1.69
15	£1.90
20	£2.25
24	£2.53
36	£3.57

COLOUR PRINT FILM

Top quality 24 exposure colour print film only £1.25 available in 110, 126 and 135 sizes.

Complete the coupon below and post to: Financial Times Film Service, PO Box 45, Taplow, Maidenhead, Berks SL6 0AQ. Telephone: 0734 587959.

Note: While the utmost care is exercised to ensure the safety of films delivered, we regret that no liability can be accepted for any losses resulting from the loss or damage to any films.

Registered Office: 3 Kidwells Park Drive, Maidenhead, Berks.

Please enclose cheque/P.O. made payable to "Financial Times Film Service" and post with film and coupon in a strong envelope to:

Financial Times Film Service, P.O. Box 45, Taplow, Maidenhead, Berks SL6 0AQ.

If colour print film required please indicate quantity and add cost to order

Film Type	No. Reel.
110/24	
126/24	
135/24	

☐ If Ordinary Enprints required please tick box

NAME _____

ADDRESS _____

This offer is only applicable to readers of the Financial Times within the UK. We process on the basis that the film value does not exceed material cost and our liability is therefore limited to that amount. Offer valid to 31.12.83. Minimum charge 85p. Registered in England No. 7007290.

ENERGY REVIEW

A London launch for crude oil futures

By John Edwards, Commodities Editor



The gas oil trading "ring" at the International Petroleum Exchange's new London premises

THE LAUNCH of the London crude oil futures contract on November 21 could have a considerable impact on a vital aspect of the oil industry—pricing.

The prime function of a futures market is to provide protection against the losses incurred by unpredictable price fluctuations. But experience with other commodities has shown that futures can, and do, play a large part in influencing price expectations. Indeed, on many occasions futures set price trends by reflecting economic and political developments, as well as the fundamental supply demand situation that governs prices in physical trading.

The very existence of a central, identifiable place from which prices are issued in a constant stream to reflect day-by-day developments becomes a reference point for the outside world.

At present non-trading outsiders, including the press and politicians, have some difficulty in checking on the movements in crude oil prices, especially those in the independent "spot" market, if they do not subscribe to information services or know the relevant traders. From November 21 they will simply be able to refer to the futures market quotations which are arrived at in open-cry public trading for all to see.

Buyers and sellers of actual oil will also find that publicly quoted futures prices have a potent influence on their physical transactions. Buyers, possibly with little knowledge of the oil industry, tend to be guided by published prices.

Futures markets usually involve purely "paper" transactions, involving only a commitment to buy or sell a certain amount of a commodity at a future date. These commitments do not normally result in actual deliveries since they are cancelled before the delivery date.

Nevertheless, any futures contract has to include the facility to make and take delivery of the physical product, thus keeping prices to realistic levels. As a result, physical and futures prices tend to become aligned.

In the case of the London crude oil futures contracts, the International Petroleum Exchange, which is sponsoring the market, is planning to become directly involved in

physical oil pricing.

The contract is to have North Sea Brent Blend as a marker crude. However, several other comparable light, low-sulphur crudes from the North Sea, Nigeria, Algeria and Tunisia, will also be deliverable against the contract at premiums or discounts to be set by the International Petroleum Exchange a month before the delivery date becomes due.

The exchange says that these differentials will be assessed purely on transactions in the physical market. They will not, therefore, be distorted by the political considerations that influence other organisations, such as Opec, when fixing differentials. The IPE claims it will give an entirely independent judgment, free from the "cloak of politics." But inevitably the differentials set by the Exchange will influence the physical market.

An unusual feature of the new market is the so-called alternative delivery procedure. The normal basis for delivery under the contract is into storage tanks, pipelines or ships at the ports of Rotterdam and Amsterdam. For less than 50 lots (of 1,000 barrels each) delivery must be made into tanks at Rotterdam or Amsterdam.

The alternative delivery system allows any crude, or part of delivery, to be used to settle an outstanding futures contract providing that the buyer and seller agree the terms a month prior to the Rotterdam/Amsterdam delivery becoming due. The premiums and discounts agreed in this manner may also set guidelines for transactions in the physical market, especially since the alternative delivery procedure is expected to appeal particularly to the big user.

Brent Blend has been chosen as the marker crude not only because it is the largest volume crude traded in Europe but also because of its similarities with West Texas Intermediate and Light Louisiana Sweet. It is hoped this will encourage arbitrage trading between the London market and the existing crude oil futures contracts in New York and Chicago.

The size of the London market's lots at 1,000 barrels, is equivalent to the New York Mercantile lots of 42,000 U.S. gallons.

The crude oil contract on the New York Mercantile Exchange has been going great guns since it was launched in March. Daily

turnover has grown strongly to an average of over 2,000 lots and an "open" interest (in other words, unfilled delivery commitments) of over 12,000 lots.

In contrast, the Chicago Board of Trade's contract, introduced at the same time, has fallen back after a bright start with turnover running at a low level and open interest at below 1,400 lots.

The Chicago Board of Trade is a far bigger exchange, with a great deal more resources than the New York Mercantile. But it appears to have misjudged badly. Initially turnover in Chicago was above that in New York, but the support was coming primarily from "local" professional speculators. Once the first delivery date fell due it became apparent that the contract terms did not suit the oil industry.

The New York Mercantile Exchange was able to draw on its experience in building up the heating oil and gasoline futures contracts. It has close connections with the oil industry and tried to ensure that the contracts suited the oil trade.

An unusual feature of energy

futures contracts is that trade use—as opposed to speculative deals—represents an abnormally high volume of business when compared to other U.S. commodity futures markets.

It is estimated that in New York the oil industry accounts for something like 70 per cent of total turnover. By contrast, in the Chicago grain markets speculators normally account for over 70 per cent of total trading.

It is the support of the industry which has probably given New York the edge over Chicago. But this may not necessarily last. Firstly, speculative interest in oil futures may well increase considerably once prices start to move up again—speculators much prefer to buy in expectation of higher prices than to sell in hopes of a declining market.

Secondly, a formidable new competitor is on the horizon: the Chicago Mercantile Exchange, which has announced its intention of introducing energy futures contracts once it moves into much enlarged premises next year. The Merc has grown swiftly in recent years and is threatening to oust

the Board of Trade from the number one spot in the futures exchanges league table. It is renowned for its aggressive marketing expertise.

Chicago is the biggest futures trading centre in the world and will fight to become more heavily involved in energy contracts, which are considered to have tremendous potential. Mr Michael Bowers, recently appointed chief executive of the International Petroleum Exchange, said last week that the structural changes in the oil industry during the past decade meant that it was now ripe for the introduction of futures contracts.

It is claimed that five of the seven major oil companies are now using the New York futures market. Intermittently, the exceptions are believed to be Exxon and Standard Oil of California (Socal) which are still reluctant to become involved.

The launch of the London crude oil contract will not be surrounded by the publicity hullabaloo used so successfully to promote the introduction of London's gas oil futures market in April 1981. The aggressive

selling of the gas oil contract was a major impetus in making it one of the most successful futures markets ever launched in London.

Perhaps the IPE feels that the oil industry has been sufficiently "educated" in the use of futures or that the crude oil contract does not require heavy selling.

Mr Martin Woodhead, chairman of the IPE, claimed last week that it would be settled if turnover reached 200 lots daily within the first six months of trading—a very modest target, bearing in mind that the gas oil contract now averages turnovers of between 2,000 to 3,000 lots a day.

Trading activity in gas oil futures has been somewhat disappointing recently, perhaps reflecting the uneasy state of the market. Since the launch of the futures market, gas oil has not enjoyed the kind of boom conditions that generate increased interest in futures trading, especially from speculators.

Although the IPE is adopting a low profile on the crude oil contract, there is considerable confidence that it will prove a winner. Even if it is not used by the major oil traders who will have an interest in futures. The exchange is confident that it will pick up a lot of the speculative "day chain" trading in Brent oil, whereby single cargoes change hands many times before reaching the eventual consumer.

Futures markets are still a mystery to many oil companies, or merely viewed as an irritant adding confusion to the traditional marketing pattern. But they are likely to become an even more powerful influence if the present unstable conditions in the industry show there is a real need for the crude oil contract.

At its new premises in Dunster House, Mark Lane, in the City of London, the IPE already has facilities for simultaneous trading in three separate "rings." One ring is used for gas oil trading and one will be used for crude oil, the third could be used for gasoline (petrol), for which IPE has a contract drawn up and waiting in the wings.

The longer term plan is to introduce contracts to cover all the products made from the oil barrel. But much will depend on the success or otherwise of the crude oil contract.

FOLLOW THE LEADER

In 1977 Renault upset a lot of people by being the first to introduce turbocharging to Formula 1 racing.

All of a sudden, the name of the game changed to high performance—high efficiency.

Following the timeless premise of "seeing is believing", no fewer than seven stables turbocharge their racers today.

Including Britain's Lotus, who power their cars with the V6 Renault Gordini engine.

While winning does wonders for the ego, racing is only a means to the end. Our objectives are simple. To turn advanced engineering theory into practice. To make state-of-the-art technology available to every market segment. And we're doing it.

Now in 1983, Renault, one of the world's largest car manufacturers, turbocharges more cars in every class than any other car maker in the world.

When you search for the standards of tomorrow, have a look at what Renault is doing today.

RENAULT
WE'RE HERE

APPOINTMENTS

New chief executive for St. James's

Mr Simon Cullum has been appointed chief executive of ST JAMES'S CORPORATE COMMUNICATIONS from November 1. Mr Cullum is managing director of Response Advertising and prior to that was managing director of Charles Barker City. Mr Peter Frost, managing director, has been appointed executive deputy chairman. Mr Bill Colbert and Mr John Ellwood, associate directors, have been appointed directors and Mr Roy Bennett, Mr Diane Johnson and Mr Derek Prebble have been appointed associate directors. Mr John Chadle, chief executive of Lopex, has been appointed non-executive chairman of St James's following the retirement from full-time executive duties of Mr Harry Bengough. Mr Bengough will remain a consultant. Mr Michael Wyndham has ceased to be a director of St James's to concentrate on the overall development of the Lopex City Group which comprises St James's, Lopex Public Relations and Birn, Shaw.

The Earl of Limerick has joined the board of DE LA RUE CO. He is vice chairman of Kleinwort Benson, and was until earlier this year chairman of the British Overseas Trade Board.

Sir James Gould, chief executive of MacLagart and Mickel, has been appointed a director of MORGAN GRENFELL (SCOT-

LAND). Sir James has recently retired as chairman of the CBI in Scotland.

The VOLAC GROUP has appointed Mr Keith Barwood to the new post of group financial controller. He joins the company from Price Waterhouse.

Mr Peter Viney has resigned from EMESSE LIGHTING to concentrate on his personal business interests. Mr Viney has been non-executive chairman of Emesse for four years and he has been succeeded by Mr Michael Meyer, managing director, who will now combine this role with that of executive chairman.

Mr Jack Blanche, publisher for the past 17 years of Good Housekeeping, has been appointed to the newly formed post of executive in charge of corporate management for THE NATIONAL MAGAZINE COMPANY.

Mr Quentin MacDonnell has been appointed managing director of JEAN SORELLE (GB).

Mr Antonio Carlos da Silva Prado has been appointed representative of BANCO CREDITO NACIONAL SA (incorporated in Brazil) in London, with regional

responsibility for Europe, the Middle East and North Africa. He succeeds Mr Reinhold Marzmann, who has completed his assignment with the bank.

UNIVERSAL-MATTHEY PRODUCTS has made two changes to its board of directors with the appointment of Dr J. E. Hughes and Mr V. Dean Freese. Mr Hughes, who was recently appointed as managing director of Johnson Matthey, the company's British shareholder, also assumes the chairmanship of UMP. Mr Freese was appointed by the American parent company, UOP Inc, where he has recently become president. The two retiring directors, Mr J. Crawford (UOP), the former chairman, and Mr Ron Hewitt (JM) had each served on the UMP board since 1976. The same changes apply to the board of administration of Universal-Matthey Products (Deutschland), the German sister company, where Dr Hughes will again act as chairman.

Mr John Bailey has been appointed chief executive of BERGER INDUSTRIAL COATINGS. He was deputy managing director and operations director of Berger Paints.



Mr John Bailey, chief executive of Berger Industrial Coatings

Dr John C. Byrne has been appointed technical director at PPF INTERNATIONAL. He will assume corporate responsibilities for capital investment and production efficiency at PPF's worldwide manufacturing operations. He was works director for Vinyl Products.

Mr Donald du Parc Graham has joined the board of the LOCATION OF INDUSTRY BUREAU.

Ms Nicola M. J. Y. Plummer has been admitted to the partnership of MOSS MILLS AND PARTNERS, underwriting agents at Lloyd's.

CONTRACTS

Kent Process Control wins £0.95m work

KENT PROCESS CONTROL, a Brown Boveri Kent company, has won three contracts totalling £950,000 to supply process control systems for natural gas drilling and production platforms in the Morecambe Bay Gas Field. The first order is for fully instrumented control panels to monitor and control gas flow and utilities on three unmanned drilling platforms. The second order covers the associated interface and barrier cubicles, whilst the third order is for instrumentation on the central production and accommodation platform. When the platforms enter service in 1984-85, the instrumentation will allow remote monitoring and control of production via a telemetry link to the central control room at the Barrow shore terminal. All the orders were placed with Kent Process Control by Brown and Root (UK) on behalf of Hydrocarbons (Great Britain).

Water flow through the southern

tunnel main under the River Thames is to be monitored by equipment supplied by ATS (TELEMETRY) in a £120,000 contract with the Thames Water Authority's North London division. Equipment supplied will also allow control and monitoring of various pumping locations at Hampton now being modernised.

DEWPLAN (ET) has won orders worth over £200,000 for the supply of effluent plant. For Ross Foods Hull factory, Dewplan are supplying a screen and flotation system for the treatment of waste from meat-based convenience foods. In Dagenham, at Ford Motor Company's plant, existing sand filters are being refurbished for treating river water for process use. At Long John International's Ben Nevis malt whisky distillery, a two stage high-rate biofilter is being installed. Other contracts include a lime dosing plant for

the Central Electricity Generating Board's Fiddlers Ferry power station, and a fat separation plant at a Milk Marketing Board dairy at Severnside.

British Gas Corp has awarded a £3m contract to PA for the development and implementation of computer-based systems for the Morecambe and Rough offshore gas fields. The award also covers the provision of professional advice on maintenance, materials control and logistics. The systems, to be known as LOMS (logistics and offshore management systems) will be developed by PA's oil and gas division and computer and telecommunications division.

CONTINENTAL MICROWAVE (HOLDINGS) has been awarded a contract by British Telecom to supply new generation portable microwave link equipment for the transmission of high quality colour television signals. The contract is worth around £200,000 with early options of £14m.

The Ministry of Defence has signed a contract worth in excess of £1m with IAL to supply voice communications control systems for the re-equipment of air traffic

control centres at many of the UK's Royal Naval air stations. IAL Stratus systems will provide bi-directional communications for operational staff using radio and telephone networks to handle aircraft movements both in the air and on the ground. The contract calls for systems to be installed at 17 UK RNAS locations including the principal sites at Yeovilton, Portland, Culdrose and Lee-on-Solent.

CARSON OFFICE FURNITURE has been awarded a further contract worth £200,000, from Trafford Metropolitan Borough Council. The contract is to supply screens and desks from Carson's range of Link 900 systems furniture for the Town Hall at Stretford, which is being extended to accommodate 300 additional employees presently occupying leased accommodation.

Orders worth £200,000 for optical communications equipment have been awarded by British Telecom to STANDARD TELEPHONES AND CABLES (STC). The equipment to be supplied next month by STC Telecommunications' Basildon-based transmission products division, include: 8 Mbit/s and 140 Mbit/s optical line units and 34-140 Mbit/s multiplexers.

Q. Where can I get my hands on the world's best micro?

A. Greens Business Systems.

The computer press is very impressed with the new 'apricot' personal computer from ACT. Personal Computer World thinks it's the world's best. Practical Computing says it's a world-beater.

No wonder. Apricot offers unheard of computer power in one compact, portable package. It is complete and ready to use, and with a minimum of training can improve the productivity, performance and efficiency of any executive.

Exclusively during October, the only place you will find the new 'apricot' for immediate delivery is at Greens Business Systems in Harvey Nichols.

GBS is a wholly owned subsidiary of Debenhams p.l.c. We offer a complete computer service to businesses. Everything from impartial advice, through installation, all-inclusive leasing, and training, to continued support via our maintenance service and telephone help line.

Plus a range of the world's leading hardware and software. Including a complete range of Pulsar 4th Generation software, with applications for accounting, spreadsheets, database management, financial planning and word processing.

Buy the amazing 'apricot' from Greens Business Systems now. It's available for immediate delivery. If you prefer, you can lease your 'apricot' for as little as £48.43 per month. The choice is yours.

For a free demonstration of 'apricot' in action, contact GBS at Harvey Nichols and we'll send you details of our evening seminars.

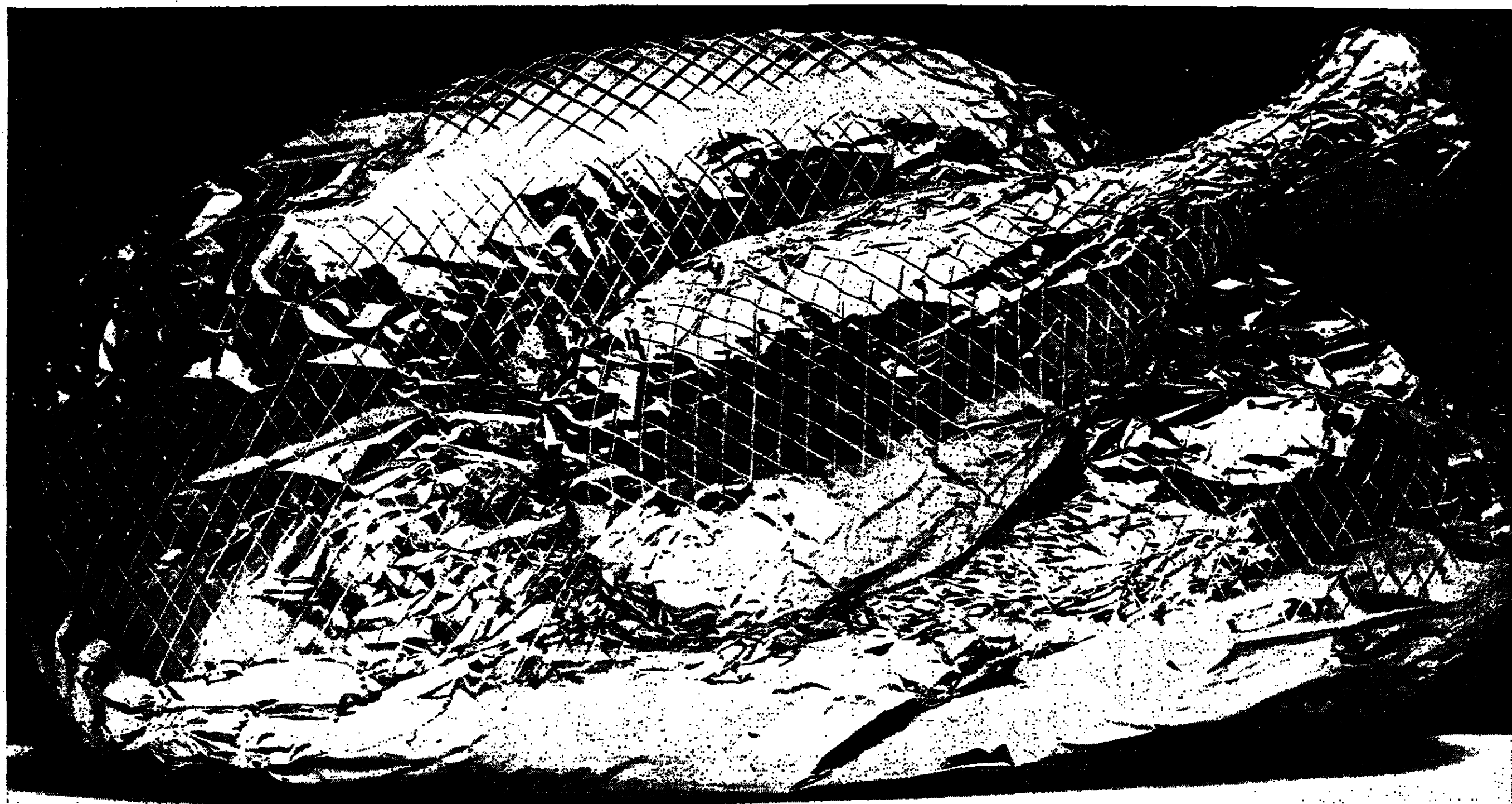
Never has there been a better time to invest in tomorrow's technology. So go 4th today. Go to Greens Business Systems at Harvey Nichols.



apricot

GBS at Harvey Nichols. Knightsbridge.

COMPUTERS FOR SUCCESS



Our latest aerospace development is at Mark2.

At British Alcan, we've been turning out cooking foil for years.

It's always sold well. Even so, it didn't stop us bringing out a lighter and stronger one.

Namely, our Diamond Foil.

Elsewhere in our company, we haven't been resting on our laurels, either.

Right now, we're developing aerospace alloys that are basically a mixture of aluminium and lithium. Making

them a lot stiffer than metals used in aircraft construction until now.

Not only that, they're also lighter.

So the airframe weight of an existing big bird, like a Boeing 747, could be reduced by anything up to ten per cent.

On new planes, the weight saving can be even more dramatic: anything up to twenty per cent.

Not that our minds are always on higher things.

Some of our ideas are much more down to earth.

Not so long ago, for example, we invented a product called BACO FFE.

It's used in the manufacture of rubber backing for carpets, to reduce the amount of smoke given off in the event of a fire.

When mixed with the polymer that makes up these backings, it slows down the rate at which the material burns, by releasing water vapour when the temperature

reaches anything over 200°C. A sort of built-in fire-fighting system.

As you can see, we're not exactly short of ideas. Which is probably just as well. Especially when you consider that more and more, aluminium is becoming a part of the everyday things we all use.

And whether it's carpets, planes or turkeys, we've got it pretty well wrapped up.

British Alcan Aluminium Limited



FINANCIAL TIMES

BRACKEN HOUSE, CANNON STREET, LONDON EC4P 4BY
 Telegrams: Finantime, London P54, Telex: 8954871
 Telephone: 01-248 8000

Wednesday October 26 1983

An ill-judged adventure

THE INVASION of Grenada by U.S. troops, supported by six of the small east Caribbean states, is an action which will require a great deal more explaining than has so far been forthcoming from President Reagan. The U.S. action, against the advice of Britain and against a sovereign Commonwealth state, has created an understandable furor in the House of Commons. Force has been employed, with little apparent effort to use other means to resolve the situation created by the bloody overthrow last week of Mr Maurice Bishop, the Grenadian Prime Minister.

U.S. hegemony

Caribbean leaders were understandably alarmed by what was happening, for it is comparatively easy in such small communities for a group of armed men to take control. In particular, the smaller Caribbean members such as Antigua, Barbados and St Lucia felt threatened. What happened in Grenada could happen to them. From the start, they have been the ones pressing for a military solution.

While their fears are understandable and they were entitled to turn to the U.S. for support, it is highly questionable whether the U.S. should have listened to them so promptly and gone along with what they wanted. The temptation to exert American hegemony in its own backyard, so soon after the tragedy of Lebanon and at a time when the administration feels Cuba and Nicaragua need to be taught a lesson, seems to have been irresistible.

America has been careful to ensure that it has acted with the backing of those at Grenada's neighbours and at the time of the anti-Bishop coup. However, the invasion—no matter how successful—involves serious risks. In the first place, America's international image is liable to be tarnished. The use of force to control the Caribbean has

been sanctioned, reviving memories of American intervention in the Dominican Republic in 1965. It is doubtful whether the overthrow of Mr Bishop seriously jeopardised American strategic interests in the area. As for Cuba, the authorities there seem genuinely embarrassed by Mr Bishop's execution. Even if General Austin wanted to push Grenada more towards Cuba there is no evidence yet that Cuba would have accepted such an overture.

Serious split

The U.S. case for military intervention is weakened by two other factors. Britain disapproves of the use of force, and Britain is, after all, head of the Commonwealth of which Grenada is a member. The intervention has also produced a serious split within the Caribbean, with larger states such as Jamaica firmly against such action, arguing instead for a mix of economic sanctions and diplomatic ostracism. This approach was never even tried. Indeed, the smaller east Caribbean states, aware of Britain's attitude, in effect went behind the U.K.'s back.

As a result, the U.S. has seriously embarrassed its staunchest European ally and created a rift within the Caribbean. On the ground, it has to give credibility to its invasion by quickly gaining control and restoring the democracy it went in to defend. This may not be as easy as it seems.

Different standards

Mr Bishop's enemies made sure that the principal figures in his government were eliminated. New leaders have to be found. The co-operation of the population with the invaders' plans cannot be taken for granted. The U.S. and its Caribbean allies were not invited in by any group on the island. Beyond all this, the U.S. appears to be exercising a doubtful principle that different standards apply to intervening in small islands or countries, and intervening in larger ones.

This new American adventure, undertaken against the advice of the British Government, is bound to strain Anglo-American relations. It comes at the worst possible time, when Mr George Shultz, the U.S. Secretary of State, will shortly be attempting to persuade his European allies of the plausibility of American leadership in the Lebanese crisis.

Health Service efficiency

THE GRIFFITHS report on management in the National Health Service, published yesterday, offers an exact diagnosis but a debatable course of treatment for Britain's health system.

In pointing to the lack of accountable and identifiable management at both the national and local level, Mr Roy Griffiths has identified a crucial weakness which has bedevilled the NHS since its formation and which has been left untouched in two major reorganisations in the last decade.

Ill-designed

His solution is, in conceptual terms, very simple. At the centre you create an executive to manage the main functions of personnel, finance, property, procurement and planning. At the periphery—in the regions, districts and individual hospitals—you simply decide who is to be boss.

This would end, at a stroke, the so-called "consensus management" method of running health authorities and hospitals, whereby every significant decision is made by a committee on which doctors, nurses and administrators put their points of view. It is a slow mechanism and one ill-designed for taking difficult decisions which threaten vested interests.

As Mr Griffiths says, if general managers are there to make clear, accountable decisions, all sorts of good things could happen. Careers could be planned, management pay could be related to performance, the consumer view could be monitored and responded to, property could be managed commercially and, above all, waste could be reduced.

This simple message, however, can expect a rough reception in some important quarters. The British Medical Association is committed to a view that the only people qualified to manage hospitals are doctors. This is rather like ICI resolving that its

business can only be managed by chemists. Nurses, their hackles raised by recent manpower cuts, are inclined to see all government manoeuvres as a cloak for more cuts.

So it will require a good deal of political resolution and skill to make the Griffiths plan stick. Equally, if morale is to be raised from its current low point, it is important that the Government now backs its judgment that Griffiths is the way forward on efficiency and abandons the tactic of crude across-the-board cuts and "efficiency savings" which have been cut by another

If that happens, and if the Government can avoid pointless confrontation over its strategy on privatisation and pay, the Griffiths report offers the best chance for a long time to make real progress in improving the Health Service. Doctors, although they have reason to press the issue of clinical freedom, will have plenty of chance to influence the detailed implementation of the plan without needing to insist upon the superiority of their own management skills in every instance. Mr Griffiths' idea of twin, overlapping boards at the centre of the NHS seems less sure-footed.

Refinement

The proposed NHS management board, comprising full-time, high-level executives, looks as if it could be a rather unaccountable body sandwiched between the supervisory board, Cabinet and Parliament on the one hand and the regions and districts, which retain executive autonomy, on the other.

If the idea is for the management board to take over the functions now provided by health department civil servants, that needs to be stated.

This matter, however, can be thrashed out in the sensibly brief period of consultation now planned. It is strongly to be hoped that the Griffiths plan, with some refinement, comes into force as expected next April.

IS THE stability of the world economy more important than the reputation of the International Monetary Fund?

This, at its starkest, is the dilemma which M. Jacques de Larosiere, the IMF's managing director, now faces in deciding how to react to last week's rejection by the Brazilian Congress of the wage limitation law which M. de Larosiere had personally singled out as the keystone of Brazil's IMF prescribed economic stabilisation programme.

When stated in such simple terms M. de Larosiere's choice appears to be no choice at all. If he decides—as he is said in Brazil to have threatened to do—not to accept the country's third request this year for IMF assistance until the Brazilian Congress approves a new wage limitation measure, M. de Larosiere may in effect be giving a thumbs down not just for Brazil, but conceivably for some of the world's leading banks in their year-long struggle against the \$500bn of debts owed by insolvent, or near insolvent, developing countries.

Without a go-ahead from the IMF next month, the \$5.5bn loan being put together by private bankers to enable Brazil to meet its obligations until the end of 1984 will certainly fall apart. The Brazilian Government will reach the end of this year with over \$30bn of interest arrears and the banks will have to concede in their 1983 accounts that at least some of their money in Brazil is irretrievably lost.

If this occurs there is no way of predicting how bank depositors and bank shareholders will react, nor whether banks will continue to hold

M de Larosiere concerned about the credibility of the IMF

ranks in their negotiations with heavily indebted nations.

Yet, despite the potentially cataclysmic consequences of such a decision, there is a curious widespread belief in Brazil that the IMF loan will not in fact be approved. This is not just explained by the Brazilian's natural sense of theatre, which leaves even the staidest of businessmen and government technocrats to characterise the current crisis as a personal battle of wits and wills between M. de Larosiere and Sr Antonio Delim Netto, the country's plenipotentiary Minister of Planning.

For although, after a year of broken promises and unrealistic forecasts from Brazil, the IMF managing director has said he has developed some animosity to the country's economic team—as have many of the world's



Sr Antonio Delim Netto (left), Brazil's plenipotentiary Minister of Planning: his battle of wits with the IMF is now more than just "theatre"

bankers and most of Brazil's own business community—the reason for fearing a genuine impasse go well beyond the trial of strength between two "authoritarian figures" as one of the IMF's technical point men has worked with both M. de Larosiere and Sr Delim Netto describes them.

If M. de Larosiere has indeed now decided to dig his heels in and insist on Congressional passage of the wage law before any IMF money is released, it is primarily because he wants to maintain the IMF's credibility as the final arbiter of international financial responsibility. Without that standing, the IMF believes that it would no longer have the ability to marshal substantial private banking funds for countries which earn its "seal of approval" by implementing IMF-sponsored adjustment programmes.

Thus the wage law, which few observers of Brazil's fledgling experiments in democracy ever expected to be passed by Congress, but which still continues to be effective in modified form, is as important to the IMF for its symbolism as for its economic effect.

At the political level, passage of the wage law by Congress would indicate, as one top Brazilian banker puts it, "the long-term support of the Brazilian people for the IMF agreement." On the other hand, he argues, that if the IMF package is pushed through only by the Government it might not survive next year's presidential election.

However, if M. de Larosiere

thinks that Congressional support is indispensable to sustain the confidence of international bankers, he is probably wrong. Most bankers, by their own admission, are looking at only this year's and next year's profits and are concerned almost exclusively about Brazil's ability to improve its trade performance. The lead-

ing banks are convinced that they can arrange the required \$5.5bn syndication by the end of the year, taking Brazil's long-term future on trust, provided only that the IMF gives its go-ahead.

But the stalemate over the wage law has a more serious economic dimension both for Brazil and for the IMF. For it is a symptom, rather than a cause of fundamental economic flaws which will almost certainly bring the whole adjustment programme to the verge of collapse yet again in the next six to nine months.

Practically every economist in the Brazilian Government, in the private sector, and for that matter in the international banks, seen to agree that some at least of the financial targets

in Brazil's letter of intent to the IMF have no chance of being achieved. It is not just that inflation this year is likely to exceed 180 per cent, rather than the 152 per cent agreed with the IMF. What is worse is that price increases are still accelerating ever more rapidly to levels which are described as "hyper-inflation" even in

now making these targets unattainable because of the over-run of inflation. Indeed, according to one highly speculative line of argument among Brazilian economists, it is the knowledge that the economic package will lead inevitably to another embarrassing re-negotiation between Brazil and the IMF next spring, which is now making M. de Larosiere seek a reason for delaying the whole adjustment programme.

The one man in Brazil who still claims to believe in the IMF target, Sr Francisco Galves, the Finance Minister, tacitly underlines the reasons for the IMF's concern about its own reputation in reply to a question about the unreality of his Government's latest official projection: "These are not only our forecasts, all these numbers and projections have been checked and agreed by the top economists in the IMF and in the international banks."

Thus, if the IMF board approves the loan to Brazil next month it will probably not only be taking the Government's wage policies on trust but also in effect admitting that the IMF staff was wrong when it set the programme's financial target—for there could really be no question of approving the package in November and then suspending it again in February when the financial trends which are already discernible today become explicit in the official statistics.

At present international bankers do not seem unduly perturbed by this prospect for one

The trouble is that standard IMF doctrine is being stood on its head in Brazil

Men & Matters

Health service

Roy Griffiths' success in avoiding any major rows with the various health lobbies over his prescription for the management of the National Health Service seems to have been partly due to what has become known as his "Socratic style."

For the past eight months, the 57-year-old chairman and managing director of J. Sainsbury group has been going round the country talking to NHS staff—and invariably opening the conversation by asking: "Would it not be better thus...?"

"It's been very enjoyable meeting a new professional group," Griffiths tells me. "There have been a lot of relaxed discussions. I have always believed that each organisation or company is unique, and you have to pay attention to its unique needs. But he is certainly no stranger to the medical profession. Two of his children and his daughter-in-law are doctors.

Griffiths' inquiries were made in his spare time, while continuing to hold down his job at Sainsbury's. The 24-page report, written as a letter to the NHS, was drafted on his annual holiday.

Wading through past reports, he says he found many had recommended sensible action. "But who was there to act on it?"—hence his own recommendations for the appointment of chief executives or general managers.

Griffiths' background has been one of general management. He comes from North Staffordshire and, after reading law at Oxford, qualified as a solicitor. After a stint at Monsanto and further study at Columbia Business School, he joined Sainsbury in 1968—and he wants to stay there.

Amid the rumours already rife about who will be the NHS's first chief executive (at around £60,000 a year), one

Roy Griffiths. thing is certain. It will not be

Clarke's dollar

A well-worn Fleet Street plank is to send out a newly-joined photographer with instructions to call at the Bank of England and obtain a picture of a Euro-dollar.

We old hands know that the Eurodollar is a currency which prefers to blush unseen, although the market in it is now worth nearly \$20bn (expressed in U.S. dollars).

The Eurodollar market is, indeed, a mighty pool of international credit centred upon London. William Clarke in the new edition of his book *Inside the City* (G. Allen and Unwin, £6.95) says the Eurodollar has "helped the City to survive the buffeting of so many sterling crises."

But who actually invented the term Eurodollar? Certainly it was still unknown as late as 1956. Then the Russian bank in Paris, Banque Commerciale pour l'Europe du Nord, began lending on its surplus dollars. That might possibly have been the source of the term. There is circumstantial evidence. The bank's telex answer-back code was "Euro-bank."

But others hold the view, says Clarke that the London banks were the first to seek out surplus dollars for such lending.

Clarke himself may well have been the first to formalise the existence of this shadowy market (conducted over telephones and teletypes) by describing it in print.

On October 24 1960, when he was City Editor of *The Times* and after he had discussed the existence of the trading with members of his staff, the phrase "the Eurodollar market" appeared in print in his columns.

That was the first recorded reference to the market according to the 1972 Supplement to

the Oxford English Dictionary. If any readers know of earlier public references to the Eurodollar market I would be interested to know. But there's no need to send me any Euro-dollars.

Private lives

Winter has now definitely started: debates on the Bill to allow the privatisation of British Telecom have begun again.

This is in danger of turning into a seasonal rite. The Commons committee debated the first version of the Bill from late autumn last year until this spring, totting up more than 180 hours, before the Bill eventually fell with the calling of the General Election. This included an 11-hour marathon from the indefatigable John Gilling, the Labour MP for Newcastle-under-Lyme.

The debates promise to be no shorter this time. The committee spent all morning yesterday discussing the sittings motion; that is, deciding when it should meet to consider the Bill. And while the Labour side is depleted since the election and the Tory side is full of new MPs, Gilling is back.

To show that he means business—if necessary, throughout several all-night sittings—he ostentatiously brought out of his suitcase a can of shaving foam and a razor.

Bond's word

For a man devoted to high-speed living—as demonstrated by his yachting and his business growth—Australia's English-born hero Alan Bond is certainly taking his time about returning to his adopted city, Perth Western Australia.

A full month after his Australia 11 lifted the America's Cup he is still dashing about the northern hemisphere conducting a big deal for his Bond Corporation. It is

and will involve his group in flexing its management expertise in either or both of those sectors. And it is in the U.S., Canada, or Britain.

But beyond that sparse information, Bond is showing quite uncharacteristic reticence by saying nothing. He expects everything to be sewn up within a few weeks.

Over lunch in London yesterday he became positively Delphic when quizzed about possible plans to invest in Britain, saying only: "I will be in the UK before five years."

Bond's arrival in Perth at the end of this week will be the signal for a renewal of the America's Cup all-Australian victory celebrations which have suffered a lull lately because of national exhaustion. Australia is expected to once again be "lifting happily" if I may borrow the immortal phrase of our correspondent there, Michael Thompson-Noel.

"But Alan," I asked, "why was your keel so effective? Was it the way it sloped or was it those secret winglets?"

He looked me in the eye. "There's something that everyone has missed. It was heavier than conventional keels right down at the bottom where the weight did most good."

Can the great keel secret have been as simple as that? Or is he indulging the Australian national sport of teasing the Poms...?

Off beam

New York investment broker's advice (1899), quoted by Ronald Duncan in *Critics' Gaffes* (Macdonald £5.95): "Simor Marconi's ingenious ideas do not seem to have made much headway... The public will be well advised to keep clear of this concern."

Observer

simple reason. Brazil may be floundering in its internal financial management but it is performing exactly on target in its external trade—netting up a trade surplus of over \$50n this year, with a good prospect of delivering the \$50bn agreed with the IMF for 1984.

Since the trade balance is ultimately what matters in determining a country's ability to service its debts, there is a view among some bankers that one can separate Brazil's external and its internal economic crisis. Indeed it is arguable that the IMF should have concentrated on the external adjustment, which is if anything going better than planned, leaving the question of inflation out of its target altogether. Clearly events are not bearing out the IMF's traditional counter-argument to this view, which states that internal adjustment is a pre-condition for satisfactory external performance.

The trouble, however, is that this standard IMF doctrine is actually being stood on its head in Brazil—the extremely rapid external adjustment is making internal adjustment impossible. This, according to Brazilian economists ranging from monetarists to liberal Keynesians, is the fundamental flaw in the IMF prescription for their country. Most of the acceleration of inflation this year has been directly attributable to the measures taken in support of the external adjustment programme—above all, the 30 per cent devaluation of the cruzeiro in February, which Sr Galves admits was clearly inflationary, but had to take priority in order to stimulate exports.

The abolition of subsidies for oil and wheat sales this summer

Economists see a fundamental flaw in the IMF prescription

and the loss of competition from imports in domestic markets resulting from the Government's strict import controls, can also be put down to the need to produce an unprecedented turnaround in the balance of payments. While the abolition of subsidies may reduce Government deficits and inflation in the long run, the IMF's programme seems to ignore their immediate inflationary effect.

Even the feverish expectations of further price increases and devaluation, which are now perhaps the biggest factor fueling the spiral towards hyperinflation in Brazil, stem partly from the universal conviction in Brazil that the IMF-inspired adjustment is simply impossible.

An article on the long-term prospects for the Brazilian economy will be published early next month.



A new City Institution

For over 200 years Christie's have been famous for their saleroom in St. James's.

Now at our new office in the heart of the City of London we can offer convenient local access to Christie's whole range of services for buyers and sellers as well as their professional advisers.

If you would like information about buying or selling at Christie's or specialist advice on valuations or taxation as it relates to works of art, please contact Simon Birch or Peter Arbutnot, Christie's in the City, 10/12 Copthall Avenue, (Second Floor), London EC2R 7DJ. Telephone 01-538 4424.

CHRISTIE'S
IN THE CITY

BRITISH CONSUMER SPENDING

The boom that refuses to die

By David Churchill, Consumer Affairs Correspondent

FATHER CHRISTMAS may have arrived a little early this year—although given the unpredictability of the British consumer, few retail chiefs are prepared to bet on it. Their confusion is caused by the sudden sales surge in September, revealed in last week's official figures, after a long hot summer when it seemed that the past year's consumer boom was petering out.

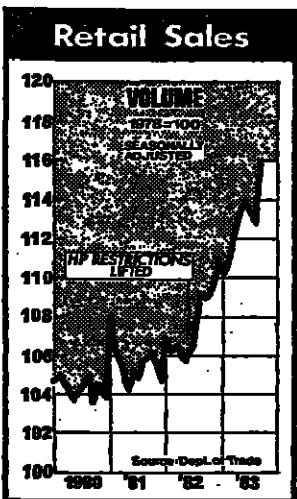
"I can't understand where all the money is coming from," says Mr David Johnson, chief executive of the Rumbelows electrical goods chain, whose view is echoed privately by many other retailers.

Certainly, there are plenty of paradoxes at present: building society receipts are at record levels, while official figures show that the ratio of savings to earnings is at an historically low figure. Unemployment continues to rise, yet spending in some of the most depressed parts of the country remains remarkably buoyant for such non-essential items as colour televisions and video cassette recorders.

The current crop of bumper first-half figures from leading retailers—and there are more to come in the next few weeks—shows the pace at which profits can accelerate once consumers start spending and why many stores groups are so happy at the moment.

So has the Christmas spending surge actually started as some retailers—such as Oxford Street—suggest? No, say Boots which is one of Britain's largest Christmas gift retailers. "We still expect it to start at the usual time of about five to six weeks before Christmas," says Mr Terry Curry, joint managing director of the Currys chain. British Home Stores agrees—Mr Roy Burgess, the group's managing director, suspects that the start of the real spending spree may actually be getting later rather than earlier.

The biggest "rogue factor" so far this year has been the weather with the change from monsoon, to heatwave, to frost,



to Indian summer. Clothing and footwear sales have soared in these changeable conditions, while furnishings and some durables seem to have been held back by the hot weather, especially during August. (Yet another paradox: shop sales were down during the heatwave, but consumers flocked instead to car showrooms and bought a record number of new cars.)

"When the back to school sales which are very big for us—failed to materialise at the end of August, our buyers were ready to jump out of the window," says Mr Burgess of BHS. "But within two weeks, after the weather changed, we had achieved our sales target for back to school clothes and they were laughing."

He believes that consumers are more likely now to wait until they actually need a purchase before they buy—hence the reluctance to buy winter clothes for children returning to school in the middle of a heatwave.

But it is by no means just the weather which has kept the consumer boom alive:

• Earnings are still ahead of inflation and the level of pay settlements in the current round of pay deals should keep them that way throughout the winter.

• Consumers appear less inclined to save and instead, they are more prone to spend at the moment," according to Mr Nick Bubb, a stores analyst

The Profits Picture

Company	Pre-tax interim profits (loss)		
	1983	1982	% change
Home Charm	2.5	1.1	+127.3
Woolworth	(6.3)	(18.7)	—
John Menzies	2.65	1.25	+69.0
Combined English Stores	0.02	(2.64)	—
Superdrug	2.88	2.24	+27.7
Grattan	(0.84)	1.0	—
Harris Queensway	9.16	4.35	+110.6
House of Fraser	4.3	(1.4)	—
Currys	4.4	2.9	+44.1
Freemans	4.57	3.15	+45.1
Sears	59.3	33.4	+77.5
Austin Reed	1.72	0.83	+51.1
Debenhams	5.77	1.54	+235.7
British Home Stores	14.35	10.85	+32.3

Source: Capital-Cure Myers

at stockbrokers Scrimgeour Kemp-Gee.

• Much of the boom is being financed on credit. Both credit card purchases and hire purchase commitments are up sharply. Mr Brian Bailey, director of the UAPT Infolink credit reference agency, says "there were 3.6 per cent more requests for consumer credit facilities in September than the same month last year—which itself was a bumper month following the end of hire purchase controls."

• The black economy may be a bigger feature than has been recognised so far in boosting sales, especially in depressed areas of the country.

The impact of this last factor is still puzzling many retailers. "It must be a significant factor now," suggests Rumbelows' Johnson, but Mr Curry says he has no hard evidence to support speculation that it is growing.

Mr Burgess notes that several £100 RBS credit telephones have been sold to customers who pay entirely in cash. "One woman apparently told the sales assistant that she had no intention of buying a phone at all when she came into the store and then she paid in cash," he said. He suspects that the underground economy is indeed more important than

generally realised.

"People are more willing to put down large cash deposits—much more than 10 per cent we ask for—and are then prepared to pay the rest back within six months," says Mr Johnson of Rumbelows.

He adds that the greater use of credit and hire purchase facilities has "surprisingly" not led to any apparent concern in the trade about an increase in the number of bad debts.

However, many City retail analysts are becoming less sanguine about how long a credit-fuelled consumer boom can continue. "People can't go on paying more and more by credit," says Mr John Richards of Capel-Cure Myers, a view echoed by some retailers as well as analysts.

Yet the willingness of consumers to go on spending in spite of direct experience of redundancy—either through knowing a friend or relative who has lost their job or even facing the threat themselves—suggests that some fundamental shifts in consumer behaviour may now be underway.

Researchers at the Allen Brady and Marsh advertising agency have this week published their study of the effects of the recession on spending patterns. They argue that

"qualitative and quantitative research on people's attitudes during this recession confirms that a new, hedonistic streak is appearing in attitude and behaviour."

On the whole, the researchers conclude, consumers believe that their standard of living has improved over the last few years and that it will continue to do so—in marked contrast to the pessimism of the mid-70s. "This optimistic attitude may explain the continued expansion of discretionary spending and also the decline in savings," they add.

Mr Bubb of Scrimgeours also backs the idea that the retail market may actually be expanding. "Consumers are being presented with new ideas—such as video cassette recorders—and with new opportunities to spend, such as in the new style fashion multiples," he points out. "In addition, all these retailing ideas are being better packaged because of an ever increasing awareness of design by retailers."

Another possible motive force for extra spending—identified by Mr Richards of Capel-Cure Myers—is that the home is becoming the focal point for entertainment and therefore spending. The "siege" mentality of the 80s suggests that more people are eating, viewing and entertaining at home because of cost and convenience.

In the 52 shopping days left before Christmas, however, most retailers are fairly confident that there is little to defect consumers from making this an extremely buoyant Christmas in terms of the level of spending. ("Probably only a heatwave in December would stop them spending now," quips one retailer.)

But next year the picture is less rosy. Few retailers are really optimistic about any fresh stimulus—such as significant tax cuts—in order to boost confidence and spending. Yet the consumer has shown more than once this year just how fickle he or she can be in deciding what and when to buy. Most retail buyers, now busy planning for 1984, would give a lot to know how fickle.

U.K. Atomic Energy Authority

Too high a price for too little return

By Roger Williams

THE UK Atomic Energy Authority will be 30 next year and now is therefore a good time to ask a delicate question. To what extent does it epitomise a contemporary British dilemma—high quality science and technology, but of uncertain economic relevance?

When the UKAEA was established it enjoyed a monopoly over nuclear development, civil and military, but its responsibilities have since changed substantially.

The major changes occurred a decade ago, when nuclear weapon development was switched to the Ministry of Defence and the fuel and radioisotope activities of the Authority were placed with separate companies, British Nuclear Fuels Ltd (BNFL) and Amersham International respectively.

There have also been over the years transfers of Authority staff to other public and private bodies. Having peaked at 40,800 in 1961, the staff total fell to 23,400 a decade later and to 12,700 in 1973-74, but has climbed back to 14,400.

The Authority's remit was widened in 1965 to allow it to do non-nuclear R and D under contract. Today the Authority still has R and D establishments at Harwell, Windscale, Winfrith, Culham, Springfields, Dounreay and Risley.

In 1982-83 the Authority's vote expenditure, the funds provided by government rather than covered by customers, came to £214.8m—or about two-fifths of publicly funded energy R and D.

To arrive at the whole of publicly funded nuclear R and D in Britain, one must add the "almost half" of the Central Electricity Generating Board's research expenditure, £78.8m in 1982-83, which the Board says is nuclear. There is also something to be included for BNFL, at least the £12.4m written off for R and D in 1982-83.

Publicly funded nuclear energy R and D thus comes to more than half the public energy R and D total.

But since nuclear power is properly seen as an alternative method of electricity generation, arguably one should focus on R and D in the electricity sector by itself. Doing that, it emerges that almost two-thirds of publicly funded R and D concerned with electricity is nuclear. These figures must be

set alongside the fact that only some 15 per cent of electricity is currently of nuclear origin, and only some 25 per cent is expected to be by 1990.

Precisely because the Authority is high powered and of long standing, it is likely to have no difficulty putting forward scientifically sound R and D projects.

But a serious concern must be that the scale and quality of its activities, and the conditions of employment it can offer, will tend to draw more of the best brains into the nuclear field than could be justified either by the present state of industrial R and D in Britain (the DTI's expenditure on R and D in 1982-83 came to

£1.2m) or by the contribution of the Authority's activities to exports.

The £120.6m which the UKAEA earned in 1982-83 from customers could perhaps be justified as commercial, and the £21.6m which it spent on fusion reactor development, £57.5m on other reactors, materials and safety, and £26.4m on "underlying research."

Given that nuclear power would not have become commercially attractive without the substantial public R and D assistance it has received, now that the electricity authorities are enthusiastic about the technology, why continue funding fusion R and D by parliamentary vote?

Why instead should not the various bodies which work to commercial discipline, BNFL, the electricity boards and the National Nuclear Corporation, and possibly the Nuclear Installations Inspectorate as the regulatory authority, now assume responsibility for all, or at least most, of fusion R and D?

The UKAEA's role can also be considered in terms of Lord Rothschild's "customer-contractor" principle, the principle that for R and D with a practical application there should be a distinction between customer and contractor.

Now, the UKAEA is a constitutional anomaly—a kind of half way house between a government department and a nationalised industry—and it appears that because the Authority is regarded by the Treasury as partly a government department, the customer-contractor principle has not really been applied to it. That is, the Energy Department, the only possible "customer" as regards the UKAEA's vote expenditure, does not act like one and indeed is not in a position to do so.

In the early years, the UKAEA's autonomy was inevitable but it is not clear that this autonomy remains appropriate in 1983.

Nor can putting on the UKAEA Board part-time members from bodies such as the CEBG, NNC or BNFL guarantee the appropriateness and scale of the Authority's activities, since it is very much in the interest of these bodies to have as much R and D done by the Authority as possible, since this costs them nothing, yet strengthens the overall base for nuclear power.

The Authority has been examined many times by Commons Select Committees, but to little effect.

In 1982 the Authority and the Energy Department commissioned consultants "to review the efficiency and economy with which the Authority uses the resources available," but these consultants were told "not to study the overall level of the Authority's vote funded R and D expenditure nor its distribution."

The objectives which the Energy Secretary indicated in June 1983 he had set the Authority also do not address directly these questions. It seems fair to ask whether after 30 years it would not now be desirable to have an independent body level committee examine again the institutional arrangements for nuclear R and D, much as did the Waverley Committee in 1953, in a review which led directly to the creation of the Authority.

Roger Williams holds the joint Chair in the Department of Government and Science and Technology Policy at the University of Manchester.

Letters to the Editor

Investment in the retailing industry

From the Managing Director of Attitude Research

Sir,—The managing director of Tesco complains (October 24) that the Government continually denies the retail industry any financial support to further its (that is, the Government's) goals. In support of this view he claims that there is mounting evidence that the retail industry is investing in areas of high or stable disposable income. It is hard to see how this claim is furthered his case or how it fits any support for the industry.

Logica offer for sale by tender

From Mr John Heller

Sir,—I read with interest Dominic Lawson's "Comment" on the Logica offer for sale by tender (October 24) and, in particular, his novel suggestion that the company should have offered the shares with no minimum price, and thus avoid the expense of underwriting.

Leaving aside the question of underwriting, it is difficult to see how Mr Lawson's suggestion can be reconciled with the requirement imposed by the Fourth Schedule to the Companies Act 1948 to state in a prospectus the minimum amount which, in the opinion of the directors, must be raised by the issue to provide for the purchase price of property, preliminary expenses and commissions, repayment of borrowings and working capital.

As Section 47 of that Act prohibits any allotment of shares unless such minimum amount is subscribed, the simple arithmetic of dividing such minimum by the number of shares being offered by the company will produce an effective minimum subscription price which, in any event, must be not less than the par value of the shares. John Heller.

76 Jermyn Street, SW7.

Biting the hand that feeds you

From Mr Phillip Oppenheim, MP

Sir,—I was slightly surprised to find, tucked onto the end of a perceptive article on the effects of new technology on employment, a somewhat specious and ill-informed attack on British farmers by Samuel Brittan ("Farm Support Scandal" October 13).

To suggest, for example, that prices paid by the consumer are equivalent to prices paid to the farmer is patently misguided. In addition, it is quite incorrect

to state that UK prices are one and a half to three times world market levels. It is interesting to note that UK food prices have risen at a lower rate than prices generally over the past decade.

In fact, over this time, farmers' incomes have risen much less than those in the manufacturing industries. Far from growing fat on EEC subsidies, farmers have only been able to save business by pushing up production, despite rising costs. Over the past 10 years, for example, the price of tractors has quadrupled and that of fertilisers has risen almost as much while the price of grain has barely doubled. The result of the ever-increasing pressure to produce more is that the volume of agricultural production has more than doubled since the war, despite gradual loss in farmland.

Britain is more self-sufficient now than she has ever been over the past 100 years. She produces over 60 per cent of what the consumers, compared with 30 per cent 40 years ago, and imports only 20 per cent from outside the EEC. This represents a saving in excess of £2bn on the balance of payments in 1982.

Another error made in Mr Brittan's article is that farmers have benefited from the rise of land values. To state that land values have doubled in real terms over the past decade is simply wrong. Most estimates put forward show values, at best, keeping pace with inflation.

Mr Brittan also talks of the destruction of the countryside, mentioning the pulling down of hedgerows—something we hear much of these days. Doubtless Mr Brittan will remember from his schoolboy history lessons that when hedgerows were first put in 400 years ago, complaints—even riots—occurred. A little historical perspective here might be useful. A quick trip into the country would soon show Mr Brittan that the much deprecated

view of the substantial contribution to unemployment made by the increasing efficiency of the retail sector, I believe that there is at present a strong case to be made for discouraging the development of the sector, especially in the less-advantaged areas. On balance, an inefficient retail industry may well at the present time be better for this country as a whole.

Robert B. Fairweather, Managing Director, 7 Broad Oaks Road, Solihull, West Midlands.

"Praisification" of the English countryside is hardly, in fact, happening.

It is unfortunate that someone of Mr Brittan's persuasion is climbing heedlessly on the current anti-farming bandwagon. Most people realise that there is much wrong with the EEC and that CAP in particular is in dire need of reform. To use this as an excuse to attack the farmer—arguably the most productive member of our society—is biting the hand that feeds you. Phillip Oppenheim, House of Commons.

Brazilian debt crisis

From Mr R. F. Legge

Sir,—At first sight your report (Oct. 12, page 1) on the Brazilian debt crisis implies that the situation is improving. In reality, vast new loans are being made to Brazil to avert financial collapse and so that entirely fictitious interest payments can be made on the (about) \$80bn debt already outstanding.

Third World countries have been allowed to build up debts totalling hundreds of billions of dollars. Prospects for real interest payments are grim and are generally non-existent for capital repayment, whatever new loans may be made. The consequences, such as higher interest rates, or worse if major defaults occur, will be borne by the general population—not just the bankers—in the creditor countries.

It is therefore reasonable to ask the major banks to explain (a) why, with their massive staffs of economic and other experts, did they make such ill-judged loans to what were at best, high-risk borrowers? (b) why they believe that the current throwing of good money after bad to the debtor countries will not suffer a similar fate? R. F. Legge, 87, Penshurst Gardens, Edgware, Middlesex.

Creating a true Common Market

From Mr Christopher M. Jackson, MEP

Sir,—Did your headline "EEC trade ministers back initiative to cut world trade barriers" (October 18) have a touch of irony? For behind the worthy decision to do something relating to the outside world lies the failure by the same ministers to accomplish a task that lies solely within their own powers, namely, creating a true EEC common market.

The trade ministers were ordered by the heads of government meeting in Copenhagen last December to make substantial progress in reducing trade barriers within the EEC, at this could make a vital contribution to improving the economic health of Europe, strengthening our industrial base and reducing unemployment.

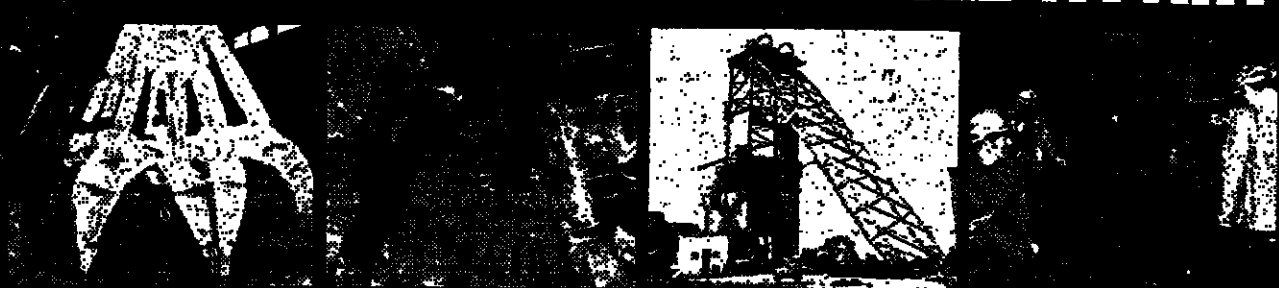
Strenuous efforts towards this end were largely wrecked on the rocklike intransigence of one Member State or other. This sort of "non-Europe," as it was dubbed in the recent Albert Ball report on the prospects for European economic recovery, is extremely costly to our citizens in terms of lost wealth.

Commissioner Etienne Davignon remarked recently that Europe will only have a future to the extent that she is prepared to accept some discipline in the form of a common discipline lies in the Council of Ministers' practice of unanimous voting. I find it hard to imagine any country, business, or even parish council that would make adequate progress if its 10 decision makers regularly insisted on unanimous agreement before acting. Yet this is the way Europe muddles along.

What can be done? While still leaving the final decision on what is a "vital national interest" to the state concerned, we need to discourage civil disobedience and to encourage pleading this too easily. One interesting proposal involves the head of government personally. If, following an initial council declaration of vital interest, a unanimous decision could not be reached within, say, 12 months, the claim for unanimity could only be maintained by the head of government personally at the European Council. If this variant on the Luxembourg Protocol (which in any case records a disagreement) could not be reached, some of the "false" vital interests which hold up Europe's progress it would be worth a try. Christopher Jackson, MEP for Kent East, Medway, Sevenoaks, Kent.

CEMENTATION

WE'RE PROUD TO HAVE PLAYED A PART



RICCALL GASCOIGNE WISTOW NORTH SELBY

Cementation Mining

Mine Design. Feasibility Studies. Project Engineering. Shaft Sinking. Grouting. Freezing. Tunnelling. Shotcrete. Storage Caverns.

Cementation Mining Ltd., Bentley House, PO Box 22, Doncaster, South Yorkshire, England. Affiliates: Johannesburg, Melbourne, Tucson, Kitwe, Bombay, Toronto.

Getatable NEWPORT

For details of industrial development sites contact Gareth Isaac or Tony Parker, Dept FT, The Civic Centre, Newport, Gwent, Tel: (0653) 56906

FINANCIAL TIMES

Wednesday October 26 1983

RUSH & TOMPKINS
Property Investment Development
& Construction 01-300 3388

Missiles expected in Europe by end of November

By Bridget Bloom in Washington

U.S. CRUISE and Pershing 2 missiles are now expected to arrive in Europe towards the end of November, immediately after the West German Bundestag has held its crucial debate on the issue.

According to senior U.S. officials, 32 cruise and nine Pershing 2 missiles are now ready to be airlifted from the U.S. to Britain, Italy and West Germany, the countries which have agreed to install the missiles before the end of the year if there is no agreement in the arms control talks in Geneva.

Although officials in Washington and in European NATO capitals have given up hope of an agreement this year, the actual timing of the missiles' arrival is giving problems.

These centre on the West German Government's undertaking to the opposition SPD that it will allow a full parliamentary debate before the Pershing arrive for the first scheduled deployment of the new missiles in south-west Germany.

The Bundestag debate was originally scheduled for early November, but the date has been shifted in response to SPD demands.

It could now begin on November 21, and possibly continue for more than one day.

Officials in Washington responsible for arranging the arrival of the missiles express some frustration at the West German failure to name, albeit privately, a precise date for deployment.

The UK, Italy and West Germany have agreed that the missiles should be operational by December 15. Officials in Washington say that the three-week period between November 21 and December 15 is the bare minimum needed to ensure that the missiles, with their launchers, support and command and control vehicles and the cruise anti-air missiles, are all in place and capable - IOC.

U.S. officials are keen to meet West German requirements that the arrival of the missiles takes place as near simultaneously as possible in all three countries. It was a condition of the original West German acceptance of the new Pershing 2s that another non-nuclear continental European country should accept new U.S. missiles at the same time.

While the British base at Greenham Common is now ready to receive the first flight of 16 cruise missiles, construction of the Italian base near Comiso in Italy has been delayed. The missiles will probably be sent to Italy and temporarily housed until the base is ready in the spring of next year.

U.S. leads invasion of Grenada

Continued from Page 1

Seaga, and hoped to influence other leaders of the Caribbean Community and Common Market (Caricom) to take an unanimous position at a heads of Government meeting in Trinidad over the weekend.

However, at a weekend meeting, Guyana's President, Mr. Forbes Burnham, strongly condemned the plan. The governments of Trinidad and Tobago, the Bahamas and Belize also decided they would take no part in any military intervention.

The supporters of the plan could not invade without outside assistance, however, as they would have been seriously outgunned.

Mr. Bishop, who was left wing and identified his country with Cuba, had been under house arrest for about a week before last Wednesday. Upon being released he attempted to storm a main army barracks with a mass of supporters.

Mr. Bernard Coard, Mr. Bishop's deputy, has not been seen in public since Mr. Bishop's detention.

Exxon income up 20% on big overseas gains

By William Hall in New York

EXXON, the world's biggest oil company, yesterday reported a 20.5 per cent increase in its third quarter net income to \$1,225bn continuing its strong earnings recovery which started in the final quarter of last year.

A 72 per cent rise in the earnings of the overseas exploration and production operations contributed the bulk of the improvement in the latest quarter. By contrast U.S. petroleum and natural gas operations reported a small drop in earnings.

Mr. C. C. Carvin, Exxon's chairman, said that in the latest quarter "there were encouraging signs of recovery for the petroleum industry in some areas. Consistent with the economic recovery underway in the U.S., market conditions here for petroleum and chemical products improved throughout the first three quarters of this year. Petroleum markets elsewhere, while showing some improvement from the year earlier period, generally remained depressed despite reductions in crude oil supply costs earlier this year."

Group revenues showed a further year-on-year decline in the latest quarter, dropping 7.4 per cent to \$23.4bn, and for the first nine months revenues are some 9.4 per cent lower at \$89.8bn.

Inventory profits resulting from the use of last-in first-out (LIFO) ac-

counting treatment contributed \$127m to the latest quarter's earnings, compared with gains of \$370m in the comparable period of 1982.

Earnings per share in the latest period totalled \$1.41 compared with \$1.17 per share a year ago. For the first nine months of 1983, Exxon's net income rose 24.2 per cent to \$3.36bn, and earnings per share rose to \$3.88 compared with \$3.11 per share.

For the first nine months of 1983, Exxon's earnings from foreign exploration and production rose 50 per cent to \$1.44bn. By contrast earnings from U.S. exploration and production were virtually unchanged at \$1.45bn.

The strong showing by Exxon's foreign operations reflected higher production of oil and natural gas, particularly in Europe, together with reduced exploration costs in most foreign areas. In the U.S. significant earnings gains from a 7 per cent increase in crude oil production and reduced exploration costs, were offset principally by a 16 per cent drop in demand for natural gas and by the first quarter 1983 provisions for regulatory matters.

Exxon's U.S. refining and marketing operations increased their earnings by 18 per cent to \$301m in the first nine months, and the group's foreign refining and marketing operations raised earnings

by 10 per cent to \$382m. Exxon says that while there was a considerable improvement in Europe from the severely depressed market conditions of 1982, margins there and in Canada remained under pressure from a combination of government price controls and competitive market forces.

Standard Oil of California (Socal), the fourth largest U.S. oil company which is selling a substantial part of its marketing and refining operations in Europe to Texaco, yesterday reported a 10.9 per cent increase in third quarter net income. Paul Taylor writes.

Socal reported third quarter earnings of \$509m or \$1.49 a share compared to net earnings of \$459m or \$1.34 a share in the 1982 quarter.

The improvement, which Socal attributed mainly to improved refining and marketing margins, came despite an 11.5 per cent fall to \$7.65bn compared to \$8.67bn in the same period last year.

The latest quarter helped boost Socal's net earnings for the first nine months to \$1.9bn or \$3.47 a share compared to \$952m or \$2.78 a share on revenues which fell by 22.5 per cent to \$21.74bn from \$28.06bn.

The company said that no significant write-offs were taken in the latest quarter.

Wall Street report, Page 25

Paris plans FFfr 650m cash aid for troubled shipbuilders

By Paul Betts in Paris

THE FRENCH Government is planning to inject FFfr 650m (\$81.7m) of additional subsidies into the troubled shipbuilding industry as part of a new aid package.

The new measures were discussed yesterday by M. Guy Lemaire, the Marine Affairs Secretary, the heads of France's two major shipbuilding groups and the labour unions.

The talks came at a time of deepening crisis for the French shipbuilders, whose orders last year were about 50 per cent lower than the previous year's. Shipments also declined by 18 per cent.

As a first step towards restructuring a sector employing about 24,000 people directly and another 25,000 indirectly, the Government last year decided to concentrate France's main shipbuilding activities into two groups.

The first group, controlled by the private Empain-Schneider conglomerate, is Chantiers du Nord et de la Méditerranée and groups together the shipyards of La Seyne near Toulon, La Ciotat at the mouth of the Rhône and Dunkirk.

The second grouping consists of the shipyards of Saint-Nazaire and Nantes, which are now under the wing of Alsthom Atlantique, the subsidiary of the nationalised Compagnie Générale d'Electricité conglomerate.

The two groups now aim to reduce capacity in the face of the continuing slump by closing one or more of the five shipyards. However, the unions, which held a protest rally on Monday in the northern city of Lille, are opposed to any closures.

The Government, already faced with a mounting list of major industrial companies seeking to make significant redundancies, is not expected to agree to any yard closures. Instead, it is likely to propose as part of the new package measures to trim the workforce at the different shipyards as well as launching an early retirement plan for the industry's workers.

To compensate for the dramatic fall in new orders, the Government is also considering giving the five civil shipyards Defence Ministry orders for naval vessels.

The Government is also considering measures in the latest sales package to help boost new export orders while continuing to encourage diversification into ship repair, offshore equipment and conversions.

Bonn bid to save Krupp merger

By James Buchan in Bonn

THE BONN Cabinet will today make another effort to rescue the planned merger of the Thyssen and Krupp steel interests in the face of massive financial demands from the companies.

The meeting coincides with parallel demands for aid from the troubled industry in the Saarland. It also comes against a background of growing West German irritation with the European Commission and other European governments over the handling of the steel crisis.

Senior West German officials have recently warned the Commission that the problems of the German industry could dominate the Athens summit meeting in December.

In particular, Bonn has made a

firm and specific connection between a reform of the subsidy practice in neighbouring steel industries and its readiness to consider higher payments to the strained European Community budget.

European diplomats in Bonn yesterday were inclined to doubt that Bonn would seriously allow steel to overburden the agenda for Athens which West German officials worked out so painfully at the last summit in Stuttgart, in June.

The new toughness in West German statements, however, reflects the intense pressure on the Government from the German industry, which has lost 40 per cent of its home market to imports and faces serious price-cutting.

Thyssen is also demanding a

commitment of DM 1.5bn (\$575m) from the Government as a condition for taking over Krupp Stahl, while the Arbed Saarstahl concern needs DM 86m from federal and regional governments merely to survive into next month.

Bonn officials hinted yesterday that there were signs of flexibility over the merger, suggesting that Thyssen might be ready to come down from its demand for DM 1.5bn, which it says it needs to neutralise Krupp's debts. However, the industry was considerably less confident.

Both Chancellor Helmut Kohl and Herr Hans-Dietrich Genscher, the Foreign Minister and vice-chancellor, have involved themselves with the merger.

Consob chairman and board member resign

By James Buxton in Rome

THE CONSOB, the troubled watchdog authority for the Italian stock exchange, was thrown into deeper turmoil yesterday by the surprise resignations of both its recently appointed chairman and another board member.

Sig Milazzo, chairman since only last January, resigned separately from Sig Gianni Pastini, a Consob board member for three years. The two men were on opposite sides in the conflict which has wracked the Consob in recent months. Now it is left with a board of only three out of the original five.

Last week, parliament decided to carry out a major inquiry into the activities of the stock exchange authority, which has been regarded as generally ineffective and often in conflict since it was set up in 1974. Sig Milazzo recently told a parliamentary committee that the Consob had "never been born" in the first place because of the gaps in the legislation setting it up, which, he said, made it unworkable.

Since parliament did not immediately accept the need for new legislation, Sig Milazzo, a former senior civil servant, was placed in the individual position of having to continue running something that he had said in effect did not exist. But his decision to resign, which he stated was "irrevocable," may also reflect the desire of political leaders to install a new chairman more disposed to grapple with the practical problems of the Consob.

Sig Pastini appears to have resigned for opposite reasons to Sig Milazzo. He argued that the Consob did not lack legal powers, but that under Sig Milazzo it had abdicated their use, and was not even acting against possible legal transgressions committed with its knowledge.

The Government now finds itself once again with a void at the head of the regulatory authority, which is supposed to control the workings of the stock exchange and the disclosure of information by quoted companies.

The Consob only became active for the first time when Professor Guido Rossi was made chairman in 1981. But he resigned in August 1982, after the Banco Ambrosiano crash, believing that he had been misled by the Bank of Italy and the Treasury.

Japanese officials in drug leaks

By Yoko Shibata in Tokyo

JAPAN'S Ministry of Health and Welfare has punished several senior officials it holds indirectly responsible for the recent spate of thefts of confidential data on new drugs.

The most senior official involved is Mr. Masao Yamashita, a deputy minister, who has been formally reprimanded - an action unprecedented in the ministry's history.

Mr. Akira Shishido, director of the ministry's National Health Institute, and Mr. Takeshi Shinomura, chairman of the Central Drug Affairs Council, a powerful advisory body to the ministry, have resigned. The three officials and six of their subordinates are held to have failed in their supervisory duties. Most of them are being punished by having their salaries cut by up to 10 per cent for six months.

The disciplinary action follows the arrest of 13 company executives and ministry officials in Japan's biggest drug-related industrial espionage case.

The presidents of the three companies involved in the scandal - Fujisawa, Teijin and Toyama Chemical - have been asked to give assurances to the ministry of plans to reform their concerns.

The Federation of Pharmaceutical Manufacturers has also been asked to ensure that its members compete fairly.

The ministry is also planning to tighten up controls on its confidential records and to rule that doctors should not serve on the Central Drug Council for more than eight years - a step apparently aimed at limiting the possibility of a special relationship developing between council members and individual drug companies.

The ministry's actions are quite separate from the legal action being taken against these already arrested. Two ministry officials have been charged with stealing documents and bribery, and executives from the three companies face charges ranging from theft to destroying evidence.

THE LEX COLUMN

The roof falls in on Burnett

The City of London's most prominent regulators were all away from their desks yesterday, singing the praises of self-regulation and stressing the paramount importance of investor protection at a conference in the Royal Lancaster hotel. On the floor of the Stock Exchange, meanwhile, the share price of Burnett & Hallamshire (B & H) was delivering a very different verdict on the British way of doing things.

B & H equity, which not so long ago was picking up outperformer of the year awards, has lost 37 per cent of its value in just under a week. The cause of all the unhappiness is a dramatic reappraisal by City analysts of the company's prospects, after a series of talks with its management.

In his last annual statement, published in June, the former chairman felt confident enough to predict that "further substantial growth will be achieved in the current year and beyond." The City duly forecast that profits would grow this year by roughly 20 per cent to £38m pre-tax. By Monday evening, many analysts were cutting that profits figure by half.

Leaving aside the ludicrous optimism of the annual report, shareholders have every right to ask why such a sudden change in the fortunes of their company - arising mostly in the property division - was not made public through a Stock Exchange announcement, as quite clearly required in the listing agreement.

The company did finally issue a statement on Monday night but it was so vague as to confuse the picture even further. In cases like this, a full announcement, coupled with a brief share suspension, serves everyone's best interests. After all the confusion, the B & H share price - at 190p - may well be discounting too much disaster. The prospective multiple, assuming a 50 per cent tax charge, is now only about 6 times.

For this, the company and its financial advisers are mostly to blame. But the Stock Exchange has missed an opportunity to demonstrate the muscle and ability of self-regulation on the day.

Property sector

The property sector, out of favour since early 1981, has begun to outperform in recent weeks. With many other sectors looking played out, it is not surprising that property companies have been picking up some support on a "leaders and laggards" basis. The structural oversupply of space shows no sign of easing, especially in commercial property, but the financial strength of the institutions and property companies means that wide have been carried without forcing a large-scale drop in rents. Yields have been rising steadily, but a major knock to asset values now looks unlikely.

Meanwhile, there have been a few encouraging noises about demand for retail outlets - and even, in select areas, for offices. A dividend yield for the sector as high as 81 per cent of that on the All-Share underpins prices the more so in the light of inflation-beating dividend rises such as those of Peschey and Samuel Properties, announced yesterday.

But the pressures in the direct property market are reflected in a sharp divergence in stock market performance. Over the last year, the sector has risen by an average 13 per cent, with investors favouring stocks with high-quality portfolios and active management. MEPC, Hammerson and Slough, for example, are all up 20 per cent or more. Companies with lower-quality portfolios have suffered. Land investors, with tenants vacating its fringe-city property on reversion, has fallen 22 per cent. Lury and Warford are down 9 per cent, and Stock Conversion 4 per cent.

The stock-market picture is enlivened by institutional takeover moves - yesterday's suspension of North British seems to indicate the latest example - while companies have also started to buy in their own shares to boost asset backing. Speculative interest up to now has centred on middle ranking stocks, but the renewed willingness of investors to commit funds is likely to spread to broader front. Over the next 12 months, there are likely to be some exhilarating rises for the sector - along with some more uncomfortable moments.

Gallaher

Gallaher's diversification strategy is going to have to turn up something rather special just to escape the shadow of the group's booming tobacco profits, to judge by the year so far. American Brands September quarter figures show its Gallaher subsidiary turning a 12 per cent increase in turnover into a 50 per cent jump in pre-tax profits, mostly attributable to a surge in the tobacco division's profits from £17.5m to £25.1m.

Benson and Hedges and Silk Cut are cropping perhaps a third of the entire UK cigarette market for Gallaher and have provided an object lesson for more than one of its competitors on the rewards of brand discipline. That said, it is remarkable that Gallaher has managed to combine Benson and Hedges' premium image with some very effective discount marketing - and even this, plus reduced costs and a relatively buoyant market, still leaves the latest profits jump a little hard to fathom.

An export drive for Silk Cut looks at least as exciting as any straight diversification in the UK. But while the total UK market's decline may be held to only 1.2 per cent this year, Gallaher like its rivals can see the threat posed by the growing social unacceptability of their product.

CLWYD & ICELAND
THE SUCCESS STORY

ICELAND Dairy Cream Sponge

Choc Topp

Our latest investment of £2 million at Deeside in Clwyd, has proved to be money well spent. Good communications and a loyal, hardworking workforce have been major factors in our success.

M.C. Walker and P.S. Hinchcliffe, Joint Managing Directors, Iceland Frozen Foods Ltd.

In under ten years, Iceland Frozen Foods have become the largest privately owned frozen foods retailer in the UK. One of their biggest assets is a new Head Office and Distribution Centre situated on Deeside Industrial Park. Distributing frozen foods to over 74 stores, from Bournemouth to Newcastle, location is of paramount importance. Clwyd was able to provide the ideal site, just two miles from the M56 and the national motorway network, bringing around 60% of the UK population to within just four lorry hours. The combination of Clwyd's unbeatable financial package, central location and hardworking work force make Clwyd an asset no company should be without.

Contact Wayne Morgan, County Industrial Officer, on 0352-2121. Or send the coupon to him at Clwyd County Council, Shire Hall, Mold, Clwyd, CH7 6NB. Telex: 61454.

Please send me further details on how Clwyd can help my business grow.

NAME _____
POSITION _____
COMPANY _____
ADDRESS _____
TEL _____

Clwyd - a better business decision

World Weather

Area	Temp	Wind	Cloud	Temp	Wind	Cloud	Temp	Wind	Cloud
Algeria	18	10	10	18	10	10	18	10	10
Amman	24	10	10	24	10	10	24	10	10
Algiers	18	10	10	18	10	10	18	10	10
Antwerp	17	10	10	17	10	10	17	10	10
Athens	17	10	10	17	10	10	17	10	10
Bahia	29	10	10	29	10	10	29	10	10
Bombay	29	10	10	29	10	10	29	10	10
Buenos Aires	28	10	10	28	10	10	28	10	10
Calcutta	28	10	10	28	10	10	28	10	10
Canton	28	10	10	28	10	10	28	10	10
Cebu	28	10	10	28	10	10	28	10	10
Colon	28	10	10	28	10	10	28	10	10
Hankow	28	10	10	28	10	10	28	10	10
Hong Kong	28	10	10	28	10	10	28	10	10
Kobe	28	10	10	28	10	10	28	10	10
London	17	10	10	17	10	10	17	10	10
Lyons	17	10	10	17	10	10	17	10	10
Manila	28	10	10	28	10	10	28	10	10
Medan	28	10	10	28	10	10	28	10	10
Osaka	28	10	10	28	10	10	28	10	10
Paris	17	10	10	17	10	10	17	10	10
Seoul	28	10	10	28	10	10	28	10	10
Singapore	28	10	10	28	10	10	28	10	10
Tokyo	28	10	10	28	10	10	28	10	10
Yokohama	28	10	10	28	10	10	28	10	10

Reagan defends action

Continued from Page 1

ban advisers on the island, plus about 800 Cuban construction workers.

The Cubans were to be allowed to leave on a Cuban ship already in St George's Harbour, while the Soviet citizens would be treated with "diplomatic courtesy." They were also free to leave, U.S. officials said.

Military officials in Washington said that a number of objectives on the island had not yet been achieved, but that the military action should be completed by this morning.

Congressional leaders, both Republican and Democratic, were yesterday giving Mr. Reagan the benefit of the doubt in his assessment of

the need for military intervention - while awaiting further information. There was reluctance to rock the boat at a time when the nation was still grieving the death of more than 200 marines in Lebanon on Sunday.

There appeared to be no direct link between events in Beirut and the invasion of Grenada - the naval task force carrying the U.S. marines was dispatched to the Grenada area before the Beirut bombings.

The action in the Caribbean was, nevertheless, seen in Washington as part of Mr. Reagan's wider policy of confronting Soviet influence worldwide - and possibly also as reflecting his desire to assert a decisive foreign policy.

SECTION II - COMPANIES AND MARKETS

FINANCIAL TIMES

Wednesday October 26 1983

Fine British Clothes for men

centaur

ELEGANTLY STYLED IN

Pure new wool

International Commercial Banking
BNP
UK 01-626 5678

Merrill Lynch suffers sharp fall

By Terry Dodsworth in New York
MERRILL LYNCH, the largest U.S. securities group, suffered a sharp drop in earnings in the third quarter as it felt the effects of increased spending to cope with its recent expansion.
Revenue remained steady at \$1.3bn, but net earnings plunged from \$100.3m a year ago to \$33.1m, or 37 cents a share. Transaction volume was up only moderately from the September 1982 period, when the bull market was in an extremely vigorous phase, and fell below the level of this year's first half.
In the meantime, however, Merrill Lynch had geared up its staff levels and this, combined with some increase in pay, pushed up personnel expenditure by 26 per cent compared with last year to \$537m.
Other expenses went up by 29 per cent to \$371m, reflecting higher office and equipment rental, and costs for advertising and market development. The group also took a \$12m pre-tax charge connected with the default of C and R Pastor, a securities dealer now in bankruptcy.
Compared with a year ago, revenues other than interest rose by 6 per cent, largely reflecting gains on commission and real estate income, with equity market activity remaining higher than a year ago, but fixed income held down by flat interest rates.
Over the nine months, revenue rose from \$3.4bn to \$4.3bn, while earnings were up to \$272m or \$3.20 a share against \$186m.

Further loss for Wheeling Pittsburgh

By Our New York Staff
WHEELING - PITTSBURGH, the eighth largest U.S. steel company, reduced its net loss in the third quarter of this year to \$9.8m against \$28m in 1982, although the latest figures include a \$11m non-recurring gain from the sale of tax benefits.
Steel shipments for the quarter rose by 7.7 per cent from 365,000 tons to 393,000 tons, but sales nevertheless slipped from \$194m to \$188.7m.
Mr Dennis Carney, chairman, said that the lower turnover on the increase in shipments this year reflected the impact of severe discounting. He added that there had been an improvement in the volume of orders for the fourth quarter and that there were good prospects which would continue into the first quarter of 1984.
Over the first nine months, losses more than doubled from \$25.5m to \$32.7m, while sales fell to \$551m compared with \$598m.

Profits plunge at Paradyne

By Our New York Staff
PARADYNE, the fast growing manufacturer of computer communications equipment which has been charged by the Securities and Exchange Commission with using fraudulent means to win a major contract, has reported a sharp drop in its third-quarter profits with net income down from \$7m to \$0.8m.
The company says that the results continue to be affected by lower than expected product deliveries, higher operating expenses and \$700,000 in legal costs relating to the defence of the SEC suit against the company.
Revenues fell 3 per cent to \$50.3m in the latest quarter but the company says that orders and customer activity both at home and abroad continued to improve in the quarter, bolstered by the introduction of a new family of high speed models.
For the first nine months Paradyne's net income totalled \$5.4m against \$19.4m. Revenues are 5 per cent higher at \$153.6m.

Kvaerner sees little change

By Fay Gjester in Oslo
KVAERNER, the Norwegian ship and platform building and engineering consultancy group, expects profits of around Nkr 350m (\$48m) this year - little changed from last year's pre-tax figure of Nkr 351.4m. Sales are expected to reach about Nkr 4.8bn, compared with Nkr 4.4bn in 1982.
The group's eight-month report showed both sales and profits up on the same period last year. Sales reached Nkr 2.7bn against Nkr 2.45bn in January-August, 1982, and pre-tax profits - including Nkr 30m extraordinary credits - totalled Nkr 201m.

John Davies in Frankfurt charts the decline of a West German industrial group

Power play behind MAN's recovery plan

MAN, the West German truck and engineering group, enjoyed a reputation for years as a gem within the GHH manufacturing realm. Today the gem has lost some of its glitter, because of problems in markets for heavy trucks, marine engines and general engineering.
The fading fortunes of MAN, Maschinenfabrik Augsburg-Nürnberg, have touched off a power struggle among key figures anxious to influence its strategy.
MAN is by far the weightiest segment of GHH, Gutehoffnungshütte, a wide-ranging group which traces its origins back to Germany's 18th century ironworks. Crucial discussions on personnel and policy are expected at top-level meetings of both GHH and MAN next month.
Four of the top protagonists in the power play are:
● Dr Manfred Lennings: Aged 49, he has been chief executive of GHH for eight years and is regarded as one of West Germany's top industrialists. He has offered to resign after opposition from leading shareholders to his plan for MAN, which is more than 75 per cent owned by GHH.
In addition to managing GHH, Dr Lennings is chairman of the MAN supervisory board. Under West Germany's two-tier system of company control, the supervisory board exercises a remote but sometimes decisive role in overseeing the activities of the management board.
Dr Lennings called for plans to enable him to move in actively as MAN's chief executive for up to a year to push through a recovery plan.

● Herr Paul Lichtenberg: Aged 71, he has held sway for many years at Commerzbank, West Germany's third largest commercial bank, where he is chairman of the supervisory board. He is widely regarded as a man with considerable influence in business circles.
Opposition to Dr Lennings' plan is understood to emanate from within Regia Verwaltungsgesellschaft, a holding company owned by Allianz Insurance, the closely related Munich Re-insurance and Commerzbank.
Regia and descendants of the GHH founding families own more than 50 per cent of GHH shares. Herr Lichtenberg is a member of the GHH supervisory board, which will hold an extraordinary meeting on November 8.
● Dr Klaus Gütz: A member of the MAN supervisory board since the beginning of this year, he has taken an active part in investigating prospects for a recovery strategy. Aged 51, he formerly had managerial jobs in the Flick industrial empire and in the Allianz insurance group.
Under the Lennings plan, he stood to take over from Dr Lennings as chairman of the MAN supervisory board. Now he is considered a strong contender to succeed Dr Lennings at GHH.
● Herr Otto Voisard: After studying engineering in Vienna, he joined MAN nearly 30 years ago and has been chief executive for the past four years. He is prominent in Bavarian business circles.
In keeping with GHH tradition, Dr Lennings had tended to allow a loose rein to executives at MAN, in



Rivals for the key role at MAN - Dr Lennings (left) and Herr Lichtenberg

view of the size and range of both groups' activities. Dr Lennings, moreover, is identified with the old industrial heartland of north-west Germany (although he studied business administration in Munich), while MAN's power centres are in staunchly independent Bavaria.
As its problems grew, MAN cut its dividend after earning lower profit in the 12 months to June 30, 1982, and then suffered a DM 300m (\$115.3m) operating loss on group sales of DM 8.8bn in 1982-83.
MAN's setback is one of the reasons why GHH, with group sales of DM 15.7bn, cut its dividend last financial year.

MAN executives indicated that half the loss came from the commercial vehicles division, whose sales revenue dropped DM 1bn to DM 2.8bn. With domestic and export markets shrinking, MAN's truck sales fell a third to only 10,000 and bus sales fell 17 per cent to 2,400.
However, MAN claims to have turned the corner already in its truck operations, because of a revival of the West German market and rationalisation measures, including job losses.
As a result, Herr Wilfried Lochte, the trucks chief, has predicted that the commercial vehicles division

may lift revenue 20 per cent to DM 3.3bn and sharply reduce its losses this financial year.
On the other hand, he sees no immediate revival in exports, which used to make up 60 per cent of MAN's truck sales and now comprise only a third.
MAN, which employs just under 60,000 workers in its entire group, including 50 per cent owned subsidiaries, has been steadily cutting its truck assembly workforce - from 21,500 in 1980 to a planned 16,000 by mid-1984.
The company recently announced structural changes aimed at stronger concentration of heavy truck assembly in Munich. Its Salzgitter plant will concentrate on assembly of buses, special vehicles, medium-weight trucks and the smaller MAN-Volkswagen joint venture trucks.
In its diesel engine division, MAN has suffered from the world slump in shipbuilding and a decline in orders from oil-producing countries. Competition from Japan has also hit profitability.
MAN has reacted by closing its Hamburg diesel works and putting workers on short time at its plant at Augsburg in Bavaria. Job losses have long been rumoured at Augsburg and confirmed recently.
In its general engineering operations, MAN has been hit by declining orders from developing countries, which have cut ambitious plans for industrial installations because of payments problems.
One of the relatively bright spots, however, has been the MAN-Roland print machinery operation.

The parent company reported steady sales revenue last financial year, although including the U.S. operation revenue was down slightly at DM 871m.
Abroad, MAN has suffered some severe setbacks, with the failure of its Argentine diesel engine project and problems in sales and servicing branches for trucks in Australia and France. It is also embroiled in a dispute with Arab partners in a Middle East transport-leasing business.
Managers and shareholders, therefore, have been investigating prospects for a new long-term strategy, possibly involving foreign partners.
MAN has assured its Augsburg workforce that the plant will continue to make marine engines, but it has confirmed that it is studying the possibility of closer co-operation with its Danish subsidiary, B & W Diesel, acquired in 1980.
One criticism directed at MAN is that it has failed to adjust fast enough to structural changes in market conditions. While it has tried to postpone harsh adjustments, it has conveyed an impression of indecisiveness.
Doubts have also arisen about the tightness of managerial control and about the economics of its truck operations.
The MAN supervisory board is due to consider the 1982-83 loss on November 11, three days after the GHH supervisory board's meeting. The manoeuvring of top managers and shareholders is expected to be reflected in decisions of these crucial meetings.

Warner Lambert profits up 16%

By Paul Taylor in New York
WARNER-LAMBERT, the U.S. pharmaceuticals and medical equipment company, yesterday reported a 16 per cent increase in third-quarter earnings, helped by higher over-the-counter and prescription drugs sales in the U.S. The rise offset a decline in worldwide sales caused primarily by unfavourable foreign exchange rates.
The company said net income in the latest quarter increased to \$30.4m or 63 cents a share from \$26.2m or 53 cents a share in the 1982 third quarter. The board voted to increase the quarterly dividend from 35 cents a share to 37 cents a share.
Sales during the quarter fell to \$773m from \$840m, but the company said that, excluding the effects of the divestiture of Entenmann's, the bakery subsidiary, in October last year and foreign currency rate changes worldwide, sales increased by 7 per cent.
The company also said that net income, excluding the effect of currency translation, which cut 9 cents a share off earnings in the latest quarter and 18 cents a share off the 1982 quarter, and the Entenmann's divestiture, increased by 8 per cent.
For the nine months the company reported net earnings of \$152m or \$1.90 a share on sales of \$2.32bn, compared to net income of \$133.3m or \$1.67 a share on sales of \$2.49bn in the same period last year.

Mack Trucks edges back to surplus aided by stock gains

By Our New York Staff

MACK TRUCKS, the U.S. manufacturer of heavy lorries in which Renault of France has a 45 per cent stake, made a slim \$39,000 net profit in the third quarter against losses of \$14.4m in the same period of last year.
The results were helped by stock profits of \$4.9m for inventory carried at costs lower than current replacement costs. In addition, interest payments fell, and investment income increased.
Mack recently sold 3.3m shares in a public offering in which the Signal Group, its former owner, also offered 11.7m shares. As a result, Signal's stake has now been reduced to 10 per cent.

Sales in the three month period came to \$300m against \$266m. Nine month losses amounted to \$30.8m compared with \$30.8m on sales of \$859.5m against \$869.4m.
● American Motors, the U.S. motor company controlled by Renault of France, reduced its net loss to \$9.1m in the third quarter of this year from \$30.8m in 1982, but after a \$90m gain from asset disposal.
In last year's third quarter, the company also reported a \$16.7m profit on the sale of assets, but before adjusting for these non-recurring items, last year's loss, at \$47.6m, was less than half the

\$90.4m recorded in the 1982 third quarter.
Mr Paul Tippett, chairman, said however, that the group expected to make a modest profit in the final quarter. Heavy launch costs had made a significant dent in the third quarter figures, but these were now largely behind the group, and both the new Jeep and the Renault Escoré had received good customer reception.
Sales in the quarter rose by 21 per cent to \$775.9m. Over the nine-month period, turnover increased from \$1.7bn to \$2.2bn, while net losses rose to \$154m from \$150m.

Rival bid for Hyster from Esco

By Our New York Staff

A RIVAL leveraged buy-out proposal for Hyster, the U.S. fork lift truck manufacturer, was launched yesterday by Esco, the company's largest shareholder.
Esco, a private manufacturer of earthmoving equipment and steel castings, already owns 19.7 per cent of Hyster, which it helped to launch in 1923. In an all-cash bid, it is offering \$69 a share for the 4.8m Hyster shares which it does not own, valuing the company at \$420.9m.
An earlier leveraged bid of \$63 a share was made for Hyster in early September by Kohlberg Kravis Roberts, the New York investment specialists. But KKR's offer, while mainly in cash, included \$5 a share of preferred stock.
Hyster's management reacted favourably to the proposals from KKR, which offered senior executives a stake in the equity of the buy-out company. The offer was also substantially above the stock market price of \$51 a share, and its net worth then at \$281m.
In a leveraged bid, financing is largely in the form of debt, which is being arranged for the Esco offer by Morgan Guaranty Trust, acting for a group of banks and financial institutions. These proposals will now be studied by a special committee established by Hyster to evaluate the KKR offer, and which has hired the investment banking firm Dillon Read to help with the examination.
Hyster, whose shares rose by \$5 yesterday morning to \$65, is currently emerging from a two-year period of rationalisation in which it has halved its worldwide labour force to 4,500.

West German banks back leasing venture with DM 224m

By John Davies in Frankfurt

A CONSORTIUM of West German banks has given guarantees totalling DM 224m (\$86m) to help to cover risk provisions at their jointly owned leasing company, Deutsche Anlagen-Leasing (Dal).
Dal, which has just had a management shake-up, has earmarked DM 250m to provide for special reserves and for a write-down in the value of property on lease. The bank guarantees cover the bulk of this amount, on top of Dal's DM 32m operating earnings from 1982.
Prof Hans Wielems, the new chief executive, said that all five share-

holder banks contributed to the guarantees, but not in proportion to their shareholding.
Westdeutsche Landesbank (WestLB), which has a 30 per cent shareholding, confirmed yesterday that it provided 40 per cent of the guarantee total.
The other banks owning Dal are Landesbank Rheinland-Pfalz, which has a 26.6 per cent stake, Bayerische Landesbank (18.7 per cent), Hessische Landesbank (16.7 per cent) and Dresdner Bank (10 per cent).
Only a month ago the banks indicated that risk provisions were likely to be about DM 120m, the bulk of which they would cover.

Prof Wielems, who was brought in from WestLB four weeks ago to replace Herr Günter Zöller, said that Dal faced about three years of hard work and would pursue a more conservative policy.
He said that Dal previously had been bent on expansion and had made virtually no risk provisions. Dal's industrial and commercial leasing objects were given a net book value of DM 13.5bn at the end of last year.

Microprocessor research boost

By David Brown

SWEDEN'S Industry Minister, Mr Thage Peterson, has put forward what he called "one of the most important industrial proposals yet" - a five-year SKR 714m (\$91.6m) development programme for advanced microprocessors.
Government aid will be mainly directed at two companies, one owned by Asea, the electrical power and engineering group, the other by Ericsson, the telecommunications company, said ministry officials.
"The development and production of microelectronic components is of decisive importance to our position as a first-ranking industrial nation," Mr Peterson said.
The plan is set against a growing

market for custom-built, rather than standard microchips. They now make up only a fifth of the world market, but this is expected to treble by 1990, officials said.
The move, made as the Government is preparing a range of controversial cuts and tax increases, aims to reduce Sweden's strategic dependence on foreign sources of supply, said officials.
Sweden has the highest density of industrial robots per industrial worker, and its public sector, banking and post offices make extensive use of computer technology. It currently imports 80 per cent of microchip requirements, mainly from the U.S. and Japan. Bafu, owned by

Asea, and Bifo, a subsidiary of Ericsson, account for the remainder.
Ministry officials said Asea's high voltage direct current power transmission and Ericsson's Ase digital telephone exchange are areas where custom-built microprocessors can be used. They are also said to be vital in Sweden's aerospace sector, and in the new JAS-39 multi-role military aircraft - at SKR 24.9bn (1981 prices) the biggest defence contract awarded to Swedish industry.
The proposal, yet to be passed by the Riksdag (parliament), calls for an initial funding of SKR 44m for 1984.

Compaq plans public share offering

By Paul Taylor in New York

TWO major U.S. computer manufacturers specialising in the rapidly expanding market for "transportable" personal computers yesterday announced enhanced products and one, Compaq, which manufactures an IBM-compatible machine, announced plans to go public with an initial public offering of 6m shares.
Compaq, which has emerged as one of the most successful companies to cash in on the success of the IBM personal computer with its own portable system, yesterday went a step further in its emulation

of IBM's marketing strategy by announcing a new version of its own system incorporating a "hard disk".
The new model, capable of storing almost 30 times as much information as Compaq's existing model which uses floppy disk drives, follows IBM's announcement earlier this year of its own XT model.
Compaq said the new model will sell for \$4,995, the same price as the IBM PC XT, compared with \$2,995 for its more basic model.
Separately Kaypro, another transportable computer manufacturer,

announced two new versions of its existing models incorporating two microprocessors, an eight-bit processor and a 16-bit processor.
● Standard and Poor's, the U.S. credit rating agency, yesterday further lowered its ratings on Warner Communications' senior debt to triple B from single A plus, and the group's subordinated debt to double B plus from triple B plus. The agency cited the huge losses at Warner Communications' Atari video game and home computer subsidiary for its decision.

Coleco suffers \$2.3m fall as sales slide

By Terry Dodsworth in New York

COLECO INDUSTRIES, the U.S. video game and small computer manufacturer, suffered a heavy setback in the third quarter, when earnings fell to \$2.3m, or 14 cents a share, against a record \$17.5m in the same period last year.
Sales also dropped steeply, declining by 31 per cent from \$165.6m to \$114.5m, and the company confirmed that its original targets for the shipments of its new Adam computer would not be met in the important pre-Christmas period.
Coleco put the main blame for the slide on its performance in reduced sales of software for the Atari and Mattel ranges of computer games, along with a line of table top arcade games introduced in 1982. Both Atari and Mattel have sunk deep into losses over the last nine months as the computer game market has taken a nosedive.
For the first nine months, Coleco's sales were up by 37 per cent from \$307m to \$421m, while earnings in the same period slipped from \$29.5m to \$27.8m or \$1.71 a share.

Smithkline earnings up

By Our New York Staff

SMITHKLINE BECKMAN, the U.S. pharmaceuticals company which is facing a stiff challenge from Glaxo of the UK in its market for anti-ulcer drugs, reported increased net earnings of 8.1 per cent for the third quarter to \$128.5m or \$1.55 a share.
The rise was somewhat below average for the U.S. drugs companies in the quarter, but the company said international earnings had been held down by the strength of the dollar, while some of its overseas divisions had made "less than anticipated progress".
It added, however, that domestic sales of Tagamet, its anti-ulcer

drug, and the world leader in its field, were well over 10 per cent ahead of last year. International sales had also increased, led by continued penetration of the Japanese market.
In addition, gains by the eye and skin care products accelerated during the quarter, with sales up by almost 20 per cent over 1982.
Sales for the quarter amounted to \$822m against \$702m a year ago, while over the first nine months they rose by almost 7 per cent from \$2.2bn to \$2.3bn. Nine-month net earnings were up by 9.5 per cent from \$337.5m to \$369.7m, or \$4.45 a share.

Mitel chiefs change jobs

By Nicholas Hirst in Toronto

MITEL, the Canadian telecommunications group, which reported a C\$8m (U.S.\$6.5m) net loss in the first six months of the year on Monday, has announced a major change in its top management.
Dr Michael Cowpland and Mr Terence Matthews, the two co-founders of the company, which made its first ever loss in the first quarter of this year, have swapped jobs. Dr Cowpland, who has been president and chief executive officer, becomes chairman. Mr Matthews, who had been chairman, becomes president and chief executive officer.

Swedes tighten share dealing rules

By David Brown in Stockholm

SWEDEN'S Finance Minister, Mr Kjell-Olaf Feldt, has announced new government taxes on share transactions, as well as a tightening of rules on reporting and conflict of interest.
The taxes would raise an estimated SKR 900m (\$115.5m) per year at current turnover levels, and would give shareholders a chance to "contribute to strengthening the budget

and the economy," he said, noting the fourfold rise in share values over the last three years.
One tax on capital gains took effect yesterday "to prevent speculation" the official said and will raise "a few hundred million kroner".
A second tax on turnover - 1/2 per cent for both buyers and sellers - is to take effect at the start of next year.

The new rules, said Mr Feldt, would make "insider" trading a criminal offence and would be aimed at both over-the-counter shares and listed stocks. They would also tighten reporting requirements for share purchases which give an owner 5 per cent or more of a company. A proposal would be made to parliament next spring.

This announcement appears as a matter of record only. October, 1983

\$25,000,000

Commercial Paper Program

established for

Heron International Finance, Inc.

a subsidiary of

HERON

Heron International PLC

Advisor on the above financing and commercial paper dealer

Salomon Brothers Inc

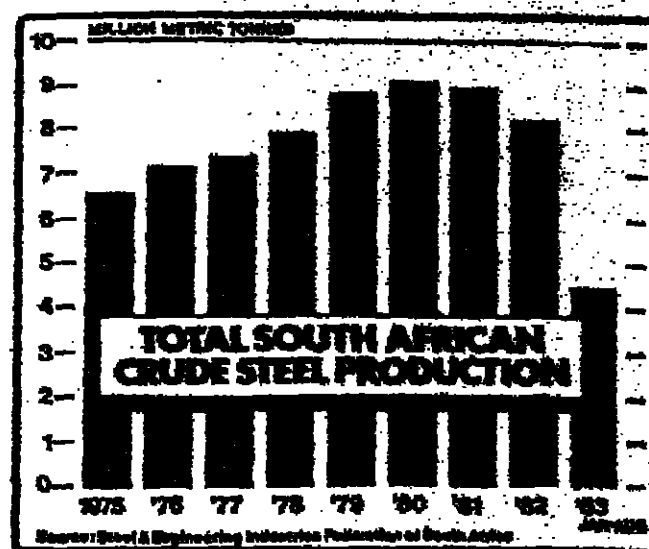
Irrevocable letter of credit in support of commercial paper issuance provided by

Barclays Bank International Limited

INTL. COMPANIES & FINANCE

Steel industry in South Africa caught in toils of change

BY JIM JONES IN JOHANNESBURG



ECONOMIC RECESSION has not been easy for South Africa's steelmakers. Not only has lower demand led to production cut-backs, but it has obliged managers to make painful reassessments of basic strategies. For many years, it was believed that economic growth in South Africa itself would provide the markets for steady increases in steel production. If the country's own economic growth slipped temporarily, it was a matter of faith that there was the export option to take up the slack.

This recession, though has differed from others. South Africa's economic cycle usually lags behind those of the main OECD countries by about two years. While the country's steelmakers were alive to the likelihood of a domestic economic downturn, most thought that export demand would be adequate to absorb any excess capacity. This time recession has, however, lasted longer than widely expected, leaving export markets oversupplied and highly competitive while the domestic market is in decline.

The immediate response of South Africa's steelmakers has been to cut production rates sharply and to introduce cost-saving programmes throughout the industry. More importantly, there have been fundamental changes in attitudes.

The change in management thinking at the state-owned Iscor is perhaps the most instructive. Gone are the days when steady additions to production capacity were an accepted thing. Now the view is that size is relatively unimportant, Iscor's next ten years are to be characterised by strategies based on the belief that only efficient producers operating with little excess capacity will cope successfully with the new steel market. The steelmaker has no immediate major expansion plans, and its marketing emphasis will be on selling to domestic users. As a result, Iscor is likely to have a declining amount of steel available for export as the decade progresses.

Mr Floors Kotzee, Iscor's managing director, is confident that the changes now being introduced will put his company's productivity on a par with that of the West German steel industry within two years. As it is, Iscor's workforce has been cut from over 70,000 to less than 60,000 in just over a year. The concern's liquid steel production reached a peak of 7.4m tonnes in the year ended June 30, 1980, and in the following two years output averaged 7.1m tonnes. The financial year ended last June 30, was, however, the first in which Iscor put into practice the strategy of overhauling its production methods. Production capacity is currently in the region of 6.8m tonnes a year, while in the year just ended output was about 5.8m tonnes.

By mid-1985, when the current R800m (£715m) modernisation programme is scheduled for completion, Iscor will have closed its least efficient plant and replaced it with more modern equipment.

In July this year, Iscor took control of the loss-making Dunsward Steel Company from Gencor, the mining house. As part of this highly controversial deal the steel company gave the mining house control of Samancor, South Africa's largest manganese, chrome and ferro-alloys producer. The deal also gave Iscor ownership of the Hlobane Colliery, which has long been one of its major suppliers of coking coal.

Recession has re-shaped the sector

While Dunsward has operated with substantial losses for several years it does have the advantage, as far as Iscor is concerned, of owning South Africa's only currently operating sponge iron plant. Ownership of this facility is an integral part of Iscor's modernisation programme.

The shift towards electric arc furnaces has made life difficult for Union Steel. Its steel production is based entirely on scrap conversion and it has been forced by Iscor's developments to build its own sponge iron production facility. This is due to come into production in 1986 at a cost of about R35m. Union Steel is currently operating at about 60 per cent of its

full production capacity, and in 1983 lost R1.1m before tax on its production of 122,000 tonnes of steel. Last year, Union spent R30m improving and up-grading its plant and equipment. This year, though profits have continued to deteriorate, a further R27m is to be spent on essential capital projects.

Dunsward, when Gencor gained proper control of the company in the late 70s, was faced with trying to make a profit out of plant which had been inadequately maintained, leading to an urgent need for modern equipment. But while capital spending on new plant and on improvements to efficiency ran at an annual rate of R30m, Dunsward's operating profits fell steadily from 1980, under the combined pressure of declining sales volumes and increased competition.

This lesson was not lost on Iscor. Dunsward's professed determination was to sell its rolled sections at any price which would make a positive contribution to overheads. This Iscor felt threatened to restrain prices over a range of rolled products. Iscor controls Union Steel through that company's voting shares, and as a result, Union will not compete head-on with the state-owned steel company. Dunsward, on the other hand, was reaching the stage early this year at which Iscor's best interests were served by some form of reorganisation in the industry. Losses in the first months of this year were making Dunsward desperate for sales, at prices reflecting the need to carry overheads.

Iscor's scope for further consolidation of the steel industry is, however, limited. Highveld Steel and Vanadium, the steelmaker controlled by Anglo American Corporation, is struggling with operations running at about two-thirds of capacity, but is most unlikely to

enter into any form of agreement with Iscor.

Anglo American has been upset by Iscor on two counts. The first and the less important was last year's deal in which Iscor acquired a 60 per cent interest in the business of Cullinan Refractories. New steelmaking techniques use low refractories rather than the old, so Cullinan's move to tie up the greater part of the Iscor market made a great deal of sense. However, it has left Anglo American's indirect subsidiary Verco's Refractories out in the cold as far as the largest part of the domestic refractories market is concerned.

In July this year Anglo received its biggest upset, when the complex deal between Iscor and Gencor gave the latter firm control of Samancor. Anglo had been prevented by the Government from acquiring control of Samancor from Iscor in the 1970s, in a highly contentious decision. Subsequent agreements had, though, led Anglo to believe that the Government and the state-owned steel company had grown more flexible, and would eventually agree to its taking control of Samancor. Anglo did acquire an important minority equity stake in Samancor in exchange for its own newly-established Middelplaat manganese mine.

This, Anglo believed, would be followed by the acquisition of a larger and controlling shareholding. Immediately after the Middelplaat deal had been concluded, however, Gencor and Iscor made an agreement which would prevent Anglo from taking control of Samancor. Highveld's policies are to a certain extent, though, coloured by the attitudes of its ultimate parent. Its strategy, even at this stage of the steel market cycle, is to broaden its product range and to compete toe-to-toe with Iscor.

Transmediterranean Pipeline Company Limited

US\$ 130,000,000

Medium-Term Loan

Guaranteed unconditionally and severally by



Snam

and

Sonatrach



Algeria/Italy Transmediterranean Gas Pipeline Project

Lead managed by

Arab Petroleum Investments Corporation (APICORP) Banca Commerciale Italiana
Bank of America International Limited Bankers Trust International Limited Banque Indosuez
Banque de la Société Financière Européenne - SFE Group / The Sumitomo Bank, Limited
Crédit Lyonnais Gulf International Bank B.S.C.
Istituto Bancario San Paolo di Torino The Long-Term Credit Bank of Japan, Limited

Managed by

Arab Banking Corporation (ABC) The Arab Investment Company S.A.A. Banca Popolare di Milano, Milano
Banca di Sicilia Credito Italiano The Fuji Bank, Limited Italian International Bank Limited
Kuwait Foreign Trading Contracting & Investment Co. (KFCTIC) The Mitsui Trust and Banking Company, Limited
National Bank of Bahrain B.S.C. The National Bank of Kuwait S.A.K. Sanwa Bank Merchant Banking Group

Provided by

Arab Banking Corporation (ABC) The Arab Investment Company S.A.A. Arab Petroleum Investments Corporation (APICORP)
Banca Commerciale Italiana Overseas Limited Banca Popolare di Milano, Milano Bank of America (Jersey) Limited
Bankers Trust Company Banque du Benelux S.A. Banque Indosuez Caisse d'Epargne de l'Etat Banque de l'Etat Luxembourg
Crédit Lyonnais Credito Italiano, London Den norske Creditbank The Fuji Bank, Limited
Genossenschaftliche Zentralbank AG, Vienne Gulf International Bank B.S.C. Istituto Bancario San Paolo di Torino, London
Italian International Bank Limited Kuwait Foreign Trading Contracting & Investment Co. (KFCTIC) The Long-Term Credit Bank of Japan, Limited
The Mitsui Trust and Banking Company, Limited National Bank of Bahrain B.S.C. The National Bank of Kuwait S.A.K. The Sanwa Bank, Limited
SFE Banking Corporation Limited - SFE Group The Sumitomo Bank, Limited UBAI International Limited Union Méditerranéenne de Banques

Coordinator
Crédit Lyonnais

Agent

Bank of America International Limited

September 1983

This advertisement complies with the requirements of the Council of The Stock Exchange.

Royco International Finance B.V.

(Incorporated with limited liability in the Netherlands)

U.S. \$75,000,000

11% per cent. Guaranteed Bonds due 1993
with Warrants to subscribe

U.S. \$75,000,000

11% per cent. Guaranteed Bonds due 1993

both series of Bonds being unconditionally and irrevocably guaranteed as to payment of principal, premium and interest by



The Royal Bank of Scotland Group plc

(Incorporated with limited liability in Great Britain and registered in Scotland)

The following have agreed to subscribe or procure subscribers for the Bonds:-

Samuel Montagu & Co.
Limited

The Royal Bank of Scotland plc

First Interstate Limited

Crédit Commercial de France

Credit Suisse First Boston
LimitedDeutsche Bank
Aktiengesellschaft

Kreditbank International Group

Lehman Brothers Kuhn Loeb
International, Inc.Morgan Grenfell & Co.
Limited

Morgan Guaranty Ltd

Morgan Stanley International

Nomura International
LimitedOrion Royal Bank
LimitedJ. Henry Schroder Wagg & Co.
LimitedSwiss Bank Corporation International
Limited

Williams & Glyn's Bank plc

The 11½ per cent. Guaranteed Bonds in the denomination of U.S. \$1,000, issued at 99½ per cent., the Warrants, issued at U.S. \$20.00 each, and the 11½ per cent. Guaranteed Bonds in the denomination of U.S. \$1,000, which will be issued at 100 per cent. plus accrued interest (if any) on exercise of Warrants, have been admitted to the Official List by the Council of The Stock Exchange, subject only to the issue of the temporary Global Bonds and the Global Warrant.

Interest on both series of Bonds is payable annually in arrears on 15th November, commencing 15th November, 1984.

Full particulars of the Bonds and the Warrants are available in the Extel Statistical Service and may be obtained during usual business hours (Saturdays excepted) up to and including 8th November, 1983 from the brokers to the issue:-

Laing & Cruickshank
Incorporating McAnally, Montgomery & Co.,
Piercy House,
7 Copthall Avenue,
London EC2R 7BE.

Bell, Lawrie, Macgregor & Co.,
Erskine House,
68/73 Queen Street,
Edinburgh EH2 4AE.

26th October, 1983



Nedbank Group Limited

Profit and Final Dividend

For the year ended
30 September 1983

Profit

The net income after tax and after transfers to internal reserves attributable to shareholders of the Nedbank Group Limited for the year ended 30 September 1983 amounted to R121.6 million which represents an increase of 37.2% for the year.

Earnings per share for the year under review increased from 100.2 cents to 137.1 cents.

	1983	1982
Taxed income after transfers to internal reserves	121 587 000	88 588 000
Less: Dividends to shareholders	60 347 000	44 217 000
Retained income brought forward	61 240 000	44 371 000
Surplus on the sale of long-term investments	9 051 000	6 184 000
	70 291 000	52 105 000
Less: Transfer to disclosed reserves	61 019 000	43 054 000
Retained income	9 272 000	9 051 000
Fully paid shares in issue	88 690 161	88 417 339
Earnings per share	137.1 cents	100.2 cents
Dividends - paid and proposed per share	66.0 cents	50.0 cents

Review

The pace of change in the economic and financial environment accelerated and competition intensified during the twelve months. Earlier steps to introduce more market-related methods of regulating the money supply were taken further, exchange control over non-residents was abolished and interest rates fluctuated widely. The companies in the Nedbank Group responded purposefully to the opportunities.

	1983	1982
Taxed income first half year	R44 484 000	R32 810 000
Taxed income second half year	R77 103 000	R55 778 000
Taxed income full year	R121 587 000	R88 588 000

A total dividend of 66 cents will absorb R60 347 000 leaving R61 240 000 to be added to the reserves of the Group.

The manner in which the increase in earnings was achieved, the directors believe, is sound reason for confident optimism. The Nedbank Group is well placed to advance, with the economy, during the next upswing.

Final Dividend

Shareholders are advised that a final dividend has been declared of 50.5 cents which, together with the interim dividend of 17.5 cents per share, makes a total dividend for the year ended 30 September 1983 of 68 cents per share.

The final dividend will be payable to shareholders registered in the books of the company at close of business on 4 November 1983.

Dividend warrants in respect of this dividend will be posted on or about 29 November 1983. Non-resident shareholders' tax will be deducted from dividends payable to non-resident shareholders. The transfer registers will close from 5 November 1983 to 12 November 1983. Shareholders who changed their address should notify the transfer secretaries immediately.

The Annual General Meeting of Shareholders will be held in Johannesburg on 29 November 1983. At this meeting shareholders will be asked to approve an increase of R50 million in the authorised capital of the company.

By order of the Board

D.A. Peterson
Secretary18 October 1983
81 Main Street, Johannesburg

Transfer Secretaries:

Fraser Street
Registrars (Pty) Limited
Sage Centre, 10 Fraser Street,
Johannesburg 2001
PO Box 61178,
Marshalltown 2107

INTERNATIONAL COMPANIES and FINANCE

Barclays Asia sues chairman of Carrian

By Robert Cottrell in Hong Kong

BARCLAYS ASIA, a subsidiary of Barclays, the UK clearing bank, is suing Mr George Tan, the chairman of the failed Hong Kong property group, Carrian, for HK\$87.5m (U.S.\$50.4m). In a High Court writ filed on Friday, Barclays Asia said that in April 1982 Mr Tan personally guaranteed a HK\$80m loan facility made available to Carrian Holdings, the privately-owned parent of the Carrian group.

According to the writ, the credit was drawn down on April 26 1982, and has not yet been repaid despite written requests to Carrian Holdings and to Mr Tan. The HK\$87.5m claim includes HK\$7.5m in interest charges.

Carrian Holdings is already the subject of winding-up petition brought by Bumiputra Malaysia Finance, the Hong Kong arm of Bank Bumiputra Malaysia. A similar petition has been brought by Bankers Trust against Carrian Investments, the group's main quoted company. Provisional liquidators have been installed at both companies.

Total debts of companies in the Carrian group and associated privately with Mr George Tan are estimated at some U.S.\$1.2bn. The largest single creditor is thought to be Bank Bumiputra, owed more than U.S.\$500m.

In its 1982 annual report, Barclays Asia said that its HK\$758m loan book included some loans "which may prove irrecoverable" but which have been guaranteed by its immediate parent, Barclays Bank International. BBI undertook to make good losses on the loans either directly or through subscription of new share capital. While the amount of loans covered by the BBI guarantee is not specified in the annual report, it is thought to be some HK\$400m.

Mr Tan is currently free on bail, awaiting trial on a charge brought against him under Hong Kong's theft ordinance. Another Carrian director, Mr Bentley Ho, faces two charges under the theft ordinance, and is also out on bail.

Malaysian merchant bank improves

By Wong Sulong in Kuala Lumpur

ARAB-MALAYSIAN Development Bank, the largest of Malaysia's 12 merchant banks, has reported a 68 per cent improvement in pre-tax profits to 20m ringgit (US\$ 8.6m) for the six months to September. The bank is wholly owned by Datuk Aman Hashim, who said results for the next six months "are expected to show further improvement."

Shareholders funds increased by over 90 per cent to 112m ringgit, loans and advances went up 47 per cent to 1.18bn ringgit, and deposits and borrowings rose 39 per cent to 1.2bn ringgit.

During the period the bank opened its fourth branch, in Kuching in East Malaysia, while its finance company added five new branches to make a total of eight.

The Government's Capital Issues Committee is expected to meet later in the week to decide on the proposal for Datuk Azman to sell off 45 per cent of AMDB to the publicly listed Taiping Textiles.

The proposal is for Taiping to issue 348.5m shares of 50 ringgit each in return for 31.5m shares of 1 ringgit each in AMDB. The proposal has been generally viewed by the market as unfavourable to Taiping, and Datuk Azman said he expected the CIC to revise the terms in favour of Taiping.

Delay to BHP acquisition of Utah International

BY MICHAEL THOMPSON-NOEL IN SYDNEY

THE October 31 deadline for Broken Hill Proprietary's planned US\$2.4bn acquisition of the Utah International resources group from General Electric of the U.S. will not be met. The deal is, however, still expected to be signed before the end of the year.

Delays have been caused by the complexities of BHP's plan to inject Utah's substantial Queensland coal interest into a consortium that would also own BHP's existing mines in Queensland.

The original plan was to merge the mines owned by Central Queensland Coal Associates (CQCA)—which is 68 per cent owned by Utah, with those operated by Thiess Dampier Maitai Coal (TDM)—which is 58 per cent owned by BHP.

TDM has now been excluded from the enlarged consortium, which nevertheless has an estimated price tag of A\$28.5m (US\$36.2m) for each one per

cent stake.

Varying stakes in CQCA are already held by Umal Consolidated, Mitsubishi Development, and the Australian Mutual Provident Society (AMP).

Neither Mitsubishi, nor the AMP is thought to be interested in raising its equity involvement in the proposed consortium, so BHP is likely to take a bigger stake than originally planned, and has been trying to attract new partners to join the consortium.

A BHP spokesman yesterday denied recent speculation that the company had approached the Anglo-American Group of South Africa, as well as a group of European steel mills.

BHP, Australia's largest company, plans to retain Utah's non-Queensland interests for itself. These include coal, copper and other mines in New Mexico, Kentucky, Canada, Brazil and elsewhere, the acquisition of which would confirm BHP as a major international resources

company in its own right.

The Utah purchase is part of a broad strategy to reduce BHP's dependence on steel. It is already a significant oil and gas producer, and has struck oil with its Tabiri No. 1A well in the Timor Sea, off Northern Australia.

Japanese steel mills approached by BHP have reportedly rejected its invitation to join the Queensland coal consortium. The export coal market is currently depressed.

To fund the formation of the proposed consortium, BHP has already organised a finance package for up to U.S.\$1.125bn with a group of about 30 banks from Australia, Japan, the U.S., Europe and Canada.

Of the Utah deal, Sir James McNeill, the BHP chairman, has said: "The timing is seen by some as adding to our difficulties; but we are buying long term assets and taking an appropriately long term view of markets."

Japanese oil groups in refining merger

By Yoko Shibata in Tokyo

MARUZEN OIL and Daikyo Oil have agreed to merge their oil refinery divisions to form a new company by the end of March 1984, after separating their oil refinery and sales divisions from the parent companies. The new company will become Japan's third largest oil refiner after Idemitsu Oil and Nippon Oil. The sales divisions of the companies are also expected to merge later.

Mr Yoshio Nakayama, the president of Daikyo, and Mr Masahiko Shima, the president of Maruzen, said the tie-up could develop into a full merger in the future.

Mr Nakayama is likely to be president of the new company, which will be owned 48 per cent each by Daikyo and Maruzen. 5 per cent by the Industrial Bank of Japan, and 3 per cent by Sanwa Bank. A steering committee will soon be set up to discuss details of the merger.

The merger is expected to restore competitiveness for both companies by a considerable reduction in refinery costs through the integration of oil procurement and refining facilities. However, the workforce of both companies will be maintained at current levels.

Maruzen Oil is Japan's fourth largest refinery with a market share of 7.8 per cent and Daikyo is the 10th largest with 5.5 per cent. The attraction of the merger to Maruzen is believed to be that it could be delisted from the Tokyo Stock Exchange, unless it takes positive steps by next March to deal with its cumulative losses. These exceeded its net worth by Y49.4bn (\$312m) at the end of March 1983.

Maruzen's losses have been caused by weak management and delayed tactics in coping with a reduction in oil demand. Its pre-tax losses were Y28.7bn in 1980-81 and expanded to Y99.2bn in 1981-82.

Reconstruction measures helped the company to report pre-tax profits of Y4.1bn in 1982-83 but its cumulative losses still exceed its net worth and if the company cannot solve its financial problems, it can be delisted for failing to pay a dividend for five consecutive years or for posting cumulative losses in excess of its net worth for three consecutive years.

Mr Sonosuke Uno, the Minister of International Trade and Industry, has welcomed a planned merger of the oil refinery divisions of the two companies, since the agreement is expected to stimulate other oil refiners to follow suit.

North American Quarterly Results

AVON PRODUCTS			GERBER PRODUCTS			NATIONAL CAN		
Third quarter	1983	1982	Second quarter	1983	1982	Third quarter	1983	1982
Revenue	677.3m	720.2m	Revenue	181.7m	180.4m	Revenue	489.2m	439.6m
Net profits	24.3m	34.2m	Net profits	13.4m	8.5m	Net profits	19m	15.4m
Net per share	0.33	0.45	Net per share	1.0	0.72	Net per share	1.0	1.01
Revenue	2,056m	2,056m	Revenue	353.7m	353.0m	Revenue	1,230m	1,230m
Net profits	88.9m	112m	Net profits	25.1m	19.5m	Net profits	15.3m	20.5m
Net per share	1.30	1.60	Net per share	1.87	1.45	Net per share	1.45	2.87
CHESBROUGH-POND'S			HARRIS CORP			NATIONAL DISTILLERS & CHEMICAL		
Third quarter	1983	1982	First quarter	1983-84	1982-83	Third quarter	1983	1982
Revenue	460.5m	445.9m	Revenue	348.6m	341.6m	Revenue	832.1m	448.4m
Net profits	44.7m	43.0m	Net profits	14.3m	14.7m	Net profits	8.5m	15.5m
Net per share	1.25	1.24	Net per share	0.45	0.47	Net per share	0.22	0.41
Revenue	1,26m	1,26m	Revenue	363.7m	363.0m	Revenue	1,800m	1,570m
Net profits	58.04m	103.2m	Net profits	25.1m	19.5m	Net profits	36.8m	61.9m
Net per share	2.74	2.85	Net per share	1.87	1.45	Net per share	0.92	1.70
CITY INVESTING			HERSHEY FOODS			NEW YORK TIMES		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	1,530m	1,470m	Revenue	462.7m	445m	Revenue	250.7m	218.7m
Net profits	58.9m	38m	Net profits	20.5m	27.2m	Net profits	14.6m	15.8m
Net per share	1.79	1.00	Net per share	2.23	2.25	Net per share	1.12	0.88
Revenue	4,200m	4,200m	Revenue	1,240m	1,150m	Revenue	783.2m	681.8m
Net profits	120.3m	104.1m	Net profits	68.9m	70.5m	Net profits	57.8m	44.8m
Net per share	2.83	2.32	Net per share	2.23	2.25	Net per share	4.45	3.35
CLUBTAY PEABODY			HOLIDAY INN			PACCAR		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	240.0m	236.0m	Revenue	448.2m	394.2m	Revenue	374.1m	356.7m
Net profits	11.2m	9.2m	Net profits	47.7m	38.7m	Net profits	1.4m	0.6m
Net per share	1.25	1.06	Net per share	1.25	0.91	Revenue	946.0m	536.7m
Revenue	616.9m	602.8m	Revenue	1,190m	1,090m	Net profits	19.8m	28.3m
Net profits	18m	17.7m	Net profits	104m	87.3m	Net per share	2.19	2.90
Net per share	2.14	2.03	Net per share	2.96	2.23			
COMBUSTION ENGINEERING			HOUSEHOLD INTL.			PHILADELPHIA ELECTRIC		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	747m	820m	Revenue	140.5m	77.4m	Revenue	983.3m	851.6m
Net profits	16.5m	33.7m	Net profits	2.54	1.20	Net profits	122m	102.4m
Net per share	0.51	1.00	Net per share	0.07	0.73	Revenue	2.6m	2.6m
Revenue	2,20m	2,050m	Revenue	353.6m	314.1m	Net profits	383.7m	324.5m
Net profits	64.8m	105.2m	Net profits	24.4m	23.2m	Net per share	2.47	2.38
Net per share	1.95	3.18	Net per share	0.73	0.73			
COMMONWEALTH EDISON			KNIGHT RIDDER NEWSPAPERS			PRENTICE-HALL		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	1,520m	1,100m	Revenue	353.6m	314.1m	Revenue	131.2m	124.1m
Net profits	324.5m	225.8m	Net profits	24.4m	23.2m	Net profits	18.5m	18.4m
Net per share	1.94	1.54	Net per share	0.73	0.73	Revenue	1.9m	1.85
Revenue	3,500m	2,100m	Revenue	353.6m	314.1m	Net profits	314.5m	282.1m
Net profits	643.2m	474.4m	Net profits	24.4m	23.2m	Net profits	24.3m	23.5m
Net per share	3.61	3.0	Net per share	0.73	0.73	Net per share	2.45	2.37
CORNING CORP			LEAR SEGLER			RYAN ROBBES		
Third quarter	1983	1982	First quarter	1983-84	1982-83	Third quarter	1983	1982
Revenue	303.3m	400.2m	Revenue	353.6m	314.1m	Revenue	155.0m	103.6m
Net profits	18.5m	17.7m	Net profits	24.4m	23.2m	Net profits	5.9m	2.2m
Net per share	1.58	1.46	Net profits	15.6m	12.5m	Net per share	0.77	0.53
Revenue	1,240m	1,210m	Revenue	353.6m	314.1m	Revenue	461.5m	270.4m
Net profits	55.7m	50m	Net profits	24.4m	23.2m	Net profits	15.3m	2.8m
Net per share	4.45	4.55	Net per share	0.73	0.73	Net per share	2.16	0.25
FLORIDA POWER AND LIGHT			MARTIN MARIETTA			ST. REGIS		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	293.3m	92m	Revenue	112.5m	110.2m	Revenue	737.7m	688.7m
Net profits	127m	196.4m	Revenue	17m	120.1m	Net profits	18.3m	50.1m
Net per share	2.14	1.96	Net profits	1.22	0.80	Net per share	0.48	1.47
Revenue	3,210m	3,040m	Revenue	453.7m	320.8m	Revenue	2,050m	1,550m
Net profits	320.8m	317.5m	Revenue	45.9m	28.4m	Net profits	38.9m	94.2m
Net per share	5.51	5.29	Net profits	1.22	0.80	Net per share	1.08	2.74
FURNAS CORP			MAYTAG			SHERWIN-WILLIAMS		
Third quarter	1983	1982	Third quarter	1983	1982	Third quarter	1983	1982
Revenue	582.8m	448.0m	Revenue	112.5m	110.2m	Revenue	530.2m	491.4m
Net profits	5.9m	15.3m	Revenue	4.3m	12m	Net profits	23.1m	18.2m
Net per share	0.41	1.03	Net profits	0.69	1.36	Net per share	0.95	0.89
Revenue	1,510m	1,420m	Revenue	240.8m	250.2m	Revenue	1.8m	1.41m
Net profits	170.2m	120.2m	Revenue	42.0m	15.0m	Net profits	4.1m	27.1m
Net per share	1.04	1.10	Net per share	0.01	0.09	Net per share	2.00	1.91

Citicorp Australia lifts earnings

BY OUR SYDNEY CORRESPONDENT

CITICORP AUSTRALIA has reported a net profit of A\$17.3m (U.S.\$15.9m) for the nine months to September 30, an 8.1 per cent improvement on the same period last year. Pre-tax profit for the period was 12 per cent higher at A\$30.7m.

At the same time, Lloyds International, a wholly-owned subsidiary of Lloyds Bank of the UK, reported a 57 per cent improvement in net profit for the 12 months to September 30, to A\$7.2m and Associated Midland Group reported a doubling of net profit for the year to September 30 to A\$6.1m.

Citicorp Australia said earnings continued to be retained

within the country, to support future growth. Operating costs in the period were cut by 4.4 per cent, to A\$34.6m, following completion of an automation programme that had been a heavy charge against profit in recent years.

At Lloyds International, Mr John Mitchell, the chief executive, said all divisions had contributed to the growth. The year had seen the establishment of a larger bill trading desk, and a full-scale foreign exchange hedge desk.

The Australian Banking Association (ABA), together

with the Life Insurance Federation, is unhappy with a suggestion by the Australian Associated Stock Exchanges (AASE) that banks, life offices, and pension funds be excluded from ownership of stockbroking firms.

The AASE told the Trade Practices Commission on Monday that it was prepared to change its membership rules by next March, and allow outside interests (excluding banks) to acquire up to 40 per cent of member firms. "If a bank wanted to go into share broking, it ought to be able to," an ABA spokesman retorted.

Downturn for OK Bazaars

BY OUR JOHANNESBURG CORRESPONDENT

SOUTH AFRICA's largest retail group, OK Bazaars, has been hurt by changing purchasing patterns resulting from the country's economic downturn. In the six months to September, pre-tax profits fell to R12.1m (\$10.8m) from R19.2m in the corresponding period of 1982.

First-half turnover rose to R810m from R731m. In the year to March 31 1983 a pre-tax profit of R49.4m was earned on turnover of R1.59bn.

The company said its difficulties arose from changes in purchasing patterns of the middle and lower income groups. Disposable incomes

were dramatically affected, the directors say, by the recession and the effect on OK's trading was accentuated by a pronounced trend away from purchases of consumer durables and semi-durables.

The board is pessimistic on OK's immediate prospects. It does not expect a meaningful economic recovery to occur in the second half of the current financial year. As a result trading conditions are expected to remain difficult.

Apart from its problems with lower sales of the more profitable durable goods, OK is locked in battle for market

share with its two main competitors, Pick n Pay and Checkers. South Africa's three main retail groups have been cutting margins on staples and non-durable and retail industry analysts believe that the price war will continue at least until the New Year.

OK has cut its interim dividend to 33 cents from 44 cents while first half earnings dropped to 54.6 cents a share from 88.3 cents. The year to March 31 1983 saw a total dividend of 142 cents and earnings of 230 cents a share. OK is 17.4 per cent owned by South African Breweries.

BAT offshoot in India maintains strong growth

BY P. C. MAHANT IN CALCUTTA

ITC, the BAT subsidiary in India, has maintained strong growth during the 15-month period to June. The company has used a 15-month period to facilitate the change over to a new accounting year.

ITC had a record turnover of Rs 7.9bn (\$908m) and strong after-tax profits of Rs 244.7m. During the previous 12-month period turnover was Rs 5.8bn and net profits amounted to Rs 77.7m.

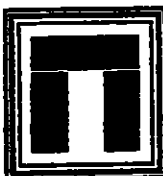
The company has declared a dividend of 22.5 per cent compared with 13 per cent previously. This is the highest dividend paid by the company in recent years.

ITC is now a well diversified company covering food and packaging, tobacco and tobacco products, and hotels

and it recently made a strong bid to take over a cement company. This has now fallen through but the company plans to expand its business operations in new directions in the near future.

Mr V. P. Singh, India's Commerce Minister, has described as "hypothetical" the question of whether or not the entire Indian textile industry is to be nationalised. It is known that the government has been studying such a proposal, reports K. K. Sharma from New Delhi.

In the wake of the nationalisation of 13 mills in Bombay recently, the government is presently examining a proposal to nationalise at least 17 more mills in the states of Gujarat and Pondicherry since these are no longer financially viable and have suspended production.



All of these securities have been sold. This announcement appears as a matter of record only.

NEW ISSUE

8,250,000 Shares

Ranger Oil Limited

Common Shares

3,250,000 of the Common Shares being offered by the Prospectus are being offered initially by the U.S. Underwriters and 5,000,000 initially by the Canadian Underwriters, subject to transfers between the U.S. Underwriters and the Canadian Underwriters.

Kidder, Peabody & Co. Incorporated Bear, Stearns & Co. Alex. Brown & Sons Hambrecht & Quist Prudential-Bache Smith Barney, Harris Upham & Co. Basle Securities Corporation Robertson, Colman & Stephens Compagnie de Banque et d'Investissements, CBI Morgan Grenfell & Co. Sal. Oppenheim jr. & Cie. Vereins- und Westbank New Japan Securities International Inc.	
---	--

Downward trend continues at Runciman

WHILE pre-tax profits for the first half of 1983 at Walter Runciman have slumped from £1,033m to £447,000 the directors say that this is a material recovery from £44,000 achieved in the previous second half.

Turnover in the first half expanded from £26.69m to £32.77m.

The directors expect group pre-tax profits for the second half of 1983 to be similar to those of the first. In the last full year pre-tax profits of this shipping, freight agency, insurance and security group, amounted to £1,077m (£2,323m).

The net interim dividend has been held at 2.5p. In the last full year a final of 2.5p was also paid.

At the end of the last full year the directors said that pre-tax profits for 1983 could be expected to show a significant improvement on results for 1982. The directors now say that the shipping market continues to be seriously depressed and that domestic demand for physical security products remains low.

Within the shipping division Currie Line, George Gibson and Liquid Gas Equipment were all profitable, but Anchor Line's eastern service operated at a loss.

The security division recovered sufficiently from last year's losses to reach breakeven.

DIVIDENDS ANNOUNCED

Company	Current payment	Dividend of	Total for year
English Natl. Preld. int.	4.4	Dec. 9	4.25
English Natl. Defd. int.	1.95	Dec. 9	1.8
Francis Inds.int.	1	Jan. 4	—
Japan Assets Trust	0.05	Dec. 22	0.15
Kwik-Fitint.	0.78	Jan. 5	0.65
New Australia	1.5	Dec. 7	1.25
Peachey Prop.	3.75	—	3
Walter Runcimanint.	2.5	Jan. 5	2.5
Samuel Props.	3.77	Jan. 9	3.3

Dividends shown pence per share net except where otherwise stated. * Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ USM stock. § For 14 months: special non-recurring dividend.

Gallaher advances by 51% in third quarter

WITH a third quarter increase of 50.7 per cent in pre-tax profits at Gallaher, results for the nine months to the end of September 1983 rose sharply from £54.9m to £88m. Both tobacco and non-tobacco sectors performed well.

Turnover in the first half expanded from £26.69m to £32.77m.

The directors expect group pre-tax profits for the second half of 1983 to be similar to those of the first. In the last full year pre-tax profits of this shipping, freight agency, insurance and security group, amounted to £1,077m (£2,323m).

At the end of the last full year the directors said that pre-tax profits for 1983 could be expected to show a significant improvement on results for 1982. The directors now say that the shipping market continues to be seriously depressed and that domestic demand for physical security products remains low.

Within the shipping division Currie Line, George Gibson and Liquid Gas Equipment were all profitable, but Anchor Line's eastern service operated at a loss.

The security division recovered sufficiently from last year's losses to reach breakeven.

The security division recovered sufficiently from last year's losses to reach breakeven.

DIVIDENDS ANNOUNCED

Company	Current payment	Dividend of	Total for year
English Natl. Preld. int.	4.4	Dec. 9	4.25
English Natl. Defd. int.	1.95	Dec. 9	1.8
Francis Inds.int.	1	Jan. 4	—
Japan Assets Trust	0.05	Dec. 22	0.15
Kwik-Fitint.	0.78	Jan. 5	0.65
New Australia	1.5	Dec. 7	1.25
Peachey Prop.	3.75	—	3
Walter Runcimanint.	2.5	Jan. 5	2.5
Samuel Props.	3.77	Jan. 9	3.3

Dividends shown pence per share net except where otherwise stated. * Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ USM stock. § For 14 months: special non-recurring dividend.

Mr Cameron says that interest charges of £2m for the three months, against £2.5m, were well contained. Provision of £2.7m net of tax has been made for closure costs.

In the UK, tobacco results continued to benefit from increased market share. Export progress was contained, with sales up 32 per cent this year.

Results of overseas subsidiaries were slightly down, mainly because of the instability of the West German market.

Third quarter results from operations were "impressive," says Mr Cameron. This reflected a good contribution from the UK and Spain, with Italy showing some signs of recovery.

Results in pumps and valves

were still being affected by weak UK demand and continuing difficulties in exporting to Nigeria. Nevertheless, cumulative figures were slightly ahead of last year, helped by generally satisfactory results from overseas companies.

Despite intense competition in distribution, Mr Cameron says that trading has been satisfactory. Although trading profits for the nine months were ahead, there was a reduction in the third quarter because last year's results included exceptional benefits from the effect of price increases on stocks.

The performance of the main companies in office products progressed well. Results, after nine months, matched last year's despite major reorganisation costs.

Tax for the third quarter increased from £8.7m to £14.6m. After minorities of £0.1m (nil) and extraordinary debits of £2.7m, attributable profits emerged ahead from £12.6m to £14.7m.

See Lex

Times Veneer in profit

IN THE first half of 1983 Times Veneer, a Southamp-ton-based timber, veneer and processed wood products maker and merchant, "The Times" Veneer Company returned to profits with a pre-tax surplus of £1,591, compared with a loss of £41,594 in 1982.

But despite earnings per 5p share given as 0.45p (losses 0.59p) there is again no interim dividend—the last payout was a final in respect of 1979.

Sales in the opening half came to £2,411m (£2,159m). There was again no tax charge—last time extraordinary debits came to £19,019.

The directors of this close company point out that Swandrade became a wholly-owned subsidiary during the period. Previously, 49 per cent of that company's equity had been held by the group and it had been

treated as an associate for accounts purposes. The relevant share of its results has been incorporated in accordance with the equity interest held in each period.

Looking to the second half they say the group's products are in demand and the overall trading circumstances remain encouraging. Accordingly the directors are hopeful that further advances will be made and that these will be reflected in results for the full year.

Leading Leisure

Leading Leisure, a Southampton-based entertainment and leisure group, is raising £1.2m through a over-the-counter placing of 4.8m shares at 25p each by Harvard Securities. At the placing price the company is capitalised at £4.8m.

Poor third quarter for Asarco

BY KENNETH MARSTON, MINING EDITOR

ANOTHER disappointing third quarter result was struck after including currency gains of \$4.8m, pre-tax profits of \$7.2m from inventory liquidation and after-tax benefit of \$3.5m from the capitalisation of exploration costs relating to the new Aquarius gold mine.

Thus, if these special items are excluded, Asarco fell back into losses in the latest quarter despite a rise in sales to a value of \$386.7m from \$380.3m in the second quarter. So there appears to have been an increase in unit costs.

Average prices of silver and copper, the company's major products, were lower in the past quarter.

Silver averaged \$12.03 per ounce compared with \$12.14 in

the second quarter while the U.S. domestic price of copper averaged only 77.7 cents per pound compared with 81 cents in the previous three months. Both prices are considerably lower at the moment.

When the second quarter results were announced in July the company pointed out that the third quarter of the year is usually a slow one owing to seasonal factors.

It warned that because basic industry tends to lag some six to nine months behind an economic recovery, "we feel that the outlook for the balance of the year should be viewed conservatively."

On the latest occasion Mr Ralph L. Hennebach, the chairman, says that the earnings out-

look for the rest of this year is uncertain. He cites the decline in prices of silver and copper coupled with a weakening in copper custom smelting and refining profits because of curtailed U.S. mine output.

Mr Hennebach comments that State-owned copper producers outside the U.S. have maintained their output while demand has fallen. This has resulted in a build-up of large stocks of copper on world commodity exchanges and depression in copper prices.

However, he adds: "Capital goods production is expected to increase as the economic recovery continues and this should strengthen demand for copper and other non-ferrous metals in 1984."

INTERNATIONAL ROUND UP

PLATINUM PRICES could top \$3,000 per ounce before the end of the decade, according to a Johannesburg academic. This compares with yesterday's London free market price of just under \$400 per ounce.

Professor Roger Gidlow, associate economics professor at the University of the Witwatersrand, said that he expects industrial consumption to rise by 10 per cent this year and more in 1984, cancelling out the surplus of supply over demand for the first time since 1978.

Supplies from South Africa and the Soviet Union, which account for more than four-fifths of the world's platinum, are unlikely to grow much over the next few years, Professor Gidlow said.

The Leirho group's Corozon Syndicate made net profits of £1,241m (£890,000) in the three months to the end of September, compared with a loss in the previous quarter of £19,000. This brought the net profit for the year to the same date to £1,31m, up from £185,000 in 1981.

Contrary to the earlier warnings from Mr S. C. Newman, chairman, to the effect that the company was unlikely to pay a dividend for the year, the interim of 2 cents has been followed by

a final of 18 cents, making a total of 20 cents.

These encouraging results follow the payment of a dividend totalling £51.3m (£512,500) from Corzys Consolidated Mines, the group's gold and copper mining company in Zimbabwe.

Curry made net profits of £31.3m in the September quarter, down from £31.4m in the three months to end-June, but showed a strong improvement over the full year. Net profits for the 12 months totalled £26.52m, up from £25.46,000 in the previous year.

The junior Australian gold exploration company Samanthas Exploration has moved to increase its holding in the profitable gold producing property Horseshoe Lights, near Meekatharra, Western Australia.

Samantha is to acquire an extra 8.9 per cent of Horseshoe Lights, raising its total interest to 19.14 per cent, through the payment of A\$1,06m (£635,000) in cash and the issue of 400,000 new shares at a 20-cent premium.

This will go to purchase Holdaway Proprietary, which is in receivership and which holds the interest in the gold property.

Mr David Muller, Samantha's chairman, said he sees a useful and growing cash flow from his company's stake in Horseshoe

Lights, which came into production in July.

The reorganisation of the Lac Minerals group of Canadian gold producers continues with the news that Lake Shore Mines, a member of the group, has agreed to buy a total of 90,000 shares of Little Long Lac Gold Mines at a price of C\$38.25 (£20). Little Long Lac is also a member of the group.

At the same time, Lac Minerals, the lead company, plans to buy 30,000 Little Long Lac shares in exchange for 35,365 Lac Minerals shares.

The group also announced that Lac Minerals is to maintain its new higher dividend rate of 15 cents per share with the next payment, due on December 2.

Latest drilling results from the big Windy Craggy copper deposit in British Columbia indicate much better grades than previously reported for the important precious metal by-products.

Canada's Falconbridge, which owns 51 per cent of the deposit, and Geddes Resources with 49 per cent, have reported an assay of 1.21 per cent copper, 9.2 grammes of gold per tonne and 8.6 grammes of silver across a width of 61.23 metres in one hole.

A higher grade intersection within this interval, all above the 500-metre below surface level, assayed 1.49 per cent copper, 16.43 grammes of gold per tonne and 5.43 grammes of silver over a width of 23.7 metres.

This higher grade intersection was unexpected, although apparently it is not unusual in this type of deposit. The northern half of the orebody is running significantly better in all the potentially commercial minerals of copper, cobalt, gold and silver, with traces of zinc.

Ore reserves were last estimated in January at 350m short tons. There was no new estimate with the latest drilling results, but the summary of the whole 1983 programme of exploration expected in about six weeks may well contain further information.

Clyde Petroleum
Clyde Petroleum has acquired Leven Oil, another company with which it has a participation agreement relating to Clyde Exploration and production projects in the U.S.

The consideration for the purchase has been satisfied by the issue to Leven shareholders of 338,415 Clyde 25p ordinary, for which application is being made for dealings on the Unlisted Securities Market.

The price for the acquisition has been based on the current value of Leven's properties and current assets.

Laidlaw Group plc

(Incorporated in Scotland under the Companies Acts 1948 to 1967 - No. 48613)

Placing by Noble Grossart Limited

of 2,000,000 ordinary shares of 10p each at 45p per share

Share capital

Authorised
£1,100,000

in ordinary shares of 10p each

Issued and
to be issued
fully paid
£853,600

Information regarding the company is available in the Extel Statistical Services and is also contained in the placing memorandum. Copies of the placing memorandum may be obtained during normal business hours on any weekday (Saturdays excepted) up to and including 9th November 1983 from:

Noble Grossart Limited
48 Queen Street, Edinburgh EH2 3NR
and
17 Lincoln's Inn Fields, London WC2A 3ED

Fielding, Newson-Smith & Co
Garrard House
31 Gresham Street
London EC2V 7DX

LAIDLAW



The Fleming Overseas Investment Trust plc

The company's policy is to invest up to 90% of the portfolio overseas, the balance to be invested mainly in United Kingdom equities with strong international interests.

Highlights of the year to 30th June	1983	1982	%change
Total Assets	£150.6m	£98.9m	+52.3
Net Asset Value per Ordinary Share	338.0p	221.2p	+52.8
Ordinary Share Price	242.0p	155.0p	+56.1

The proportion of the portfolio invested overseas has risen from 62% to 78%.
The Board is confident that the portfolio is well placed to benefit from any improvement in world markets.

Copies of the Annual Report and Accounts are available from Granby Registration Services, Bourne House, 34 Beckenham Road, Beckenham, Kent BR3 4TU.

If you've an eye for real business growth, then please read on.

Since the start of 1973, Sun Life's total group funds have risen by 346% to £2.2 billion.

They're surging vigorously ahead this year too, after a 1982 in which we set new records.

And in an economy still causing people to pull very long faces indeed.

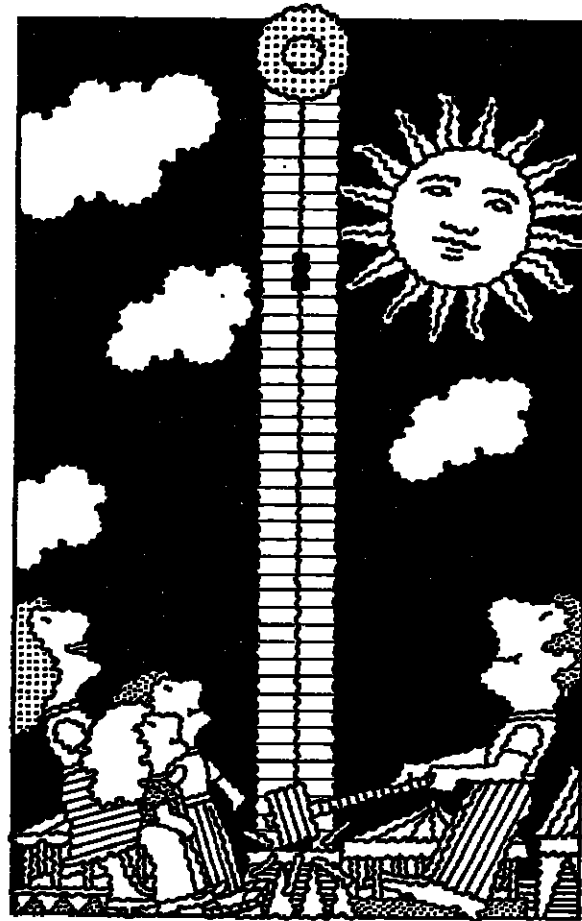
No frothy performance, this.

Over the same ten years, we've achieved dividend growth of 20% p.a. compound.

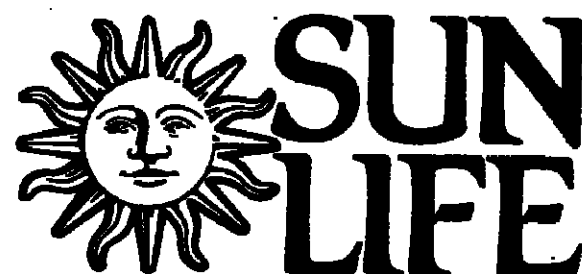
A figure well in excess of even the unerring inflation rate of the past decade.

Cheerful figures, and behind them a whole series of product and marketing initiatives that will keep the momentum going well into the future.

Why not find out how well?



Total group funds reached £2.2 billion in 1982



Sun Life: our 10 year rise and rise

Total group funds up from £.489 million to £2.2 billion.

Total premium income up from £.68 million to £272 million.

Dividends up from 2.20p to 13.40p per share: an increase of 20% p.a. compound.

In top 100 UK companies by market capitalisation.

For more information about one of the country's most successful life offices, contact-
W.J. Amos,
Sun Life Assurance Society plc,
107 Cheapside, London EC2V 6DU.
Telephone: 01-606 7788.

A major force in British Life

This advertisement is issued in compliance with the requirements of the Council of The Stock Exchange. It does not constitute an invitation to any person to subscribe for or purchase any shares.

GAMerica Inc.

(A company incorporated with limited liability in the Republic of Panama under Law 32 of February 26, 1927, on Companies)

SHARE CAPITAL

Authorised	Issued on
1,000,000	21st October, 1983
Voting redeemable Shares of common stock with no par value	98,016.29

Application has been made to the Council of The Stock Exchange for admission to the Official List of all the voting redeemable Shares of common stock with no par value of the Company issued and available to be issued. Particulars of the Company are available in the Extra Statistical Service and copies of such particulars may be obtained during business hours on any weekday (Public Holidays excepted) up to and including 11th November, 1983.

Global Asset Management
Limited
66 St. James's Street
London SW1A 1NE

Kitcat & Aitken
The Stock Exchange
London EC2N 1HB
26th October, 1983.

This advertisement is issued in accordance with the terms of the Notes (as hereinafter defined).

NOTICE TO THE HOLDERS OF TOTAL OIL MARINE p.l.c. (the "Company")

99% GUARANTEED FRENCH FRANC NOTES DUE MARCH 15, 1987 (the "Notes")

On Wednesday 19th October 1983 Compagnie Française des Pétroles (the "Guarantor") acquired 100% of the issued ordinary share capital of Total Oil Holdings Limited ("Holdings") in exchange for the whole of the issued ordinary share capital of the Company and Total Oil Great Britain Limited.

Holdings is a company incorporated in England with limited liability and having an authorised and issued share capital of £25,000,000.

THE FOLLOWING APPOINTMENTS HAVE BEEN MADE TO THE BOARD OF HOLDINGS:

P. L. BURGIN	CHAIRMAN
A. J. M. BRION	DIRECTOR
A. FARQUET	DIRECTOR
D. RENOUD	DIRECTOR

The Guarantor's obligations under the Notes remain unchanged. October 1983

Royal Worcester defence under fire from Crystalate

BY RAY MAUGHAN

Crystalate Holdings, the electronics group bidding £20m for Royal Worcester, has returned to the attack on its target's record, and specifically its defence document, in the scant few days before the offer for the china, industrial ceramics and electronics group reaches its first closing date on Friday October 28.

Writing to Royal Worcester shareholders, Mr John Leworthy, the Crystalate chairman, says forcefully that the "defence rests heavily on questioning the benefits of the merger with Welwyn Electronics and contending that it offers no scope for increasing profits. This is patent nonsense and should not,

I am sure, be tolerated by the line management of any of the companies concerned.

"Your board's inability to see the industrial sense of this merger is indicative of their attitude over the last few years."

Mr Leworthy acknowledges that "its activities are not the same as those of Welwyn Electronics. Indeed, there were more similarities between the two companies' electronics activities, there would be less sense in merging. We repeat our opinion that the combined technologies of Crystalate and Welwyn Electronics and their design, manufacturing, test and marketing facilities will complement each other and will produce a major

force in the components and assembly sector of the electronics industry."

There is no response from Crystalate to some of the key elements of the defence document, namely an attack on the volume of stock on loan stock conversion, which Crystalate proposes to issue, the lack of a cash alternative and the future of the china activities which the bidder has indicated may be sold or floated off.

Nevertheless, Crystalate has set out the reasons why "Royal Worcester's rejection of Crystalate's offer is unsound and should be ignored by shareholders."

Eagle formally rejects Allianz and lodges case for referral

BY ERIC SHORT

UK composite Eagle Star Holdings yesterday formally rejected the bid made last week by Allianz Versicherungs, West Germany's largest insurance

Star's chief executive, in his letter to shareholders, states that behind its "soft words" the intent of Allianz was clear—to acquire control of Eagle Star at a derisory price.

The statement goes on to tell shareholders to ignore the documents sent to them by Allianz and also advises them not to sell any of their shares in the stock market. It points out that any sales would only help Allianz.

Eagle Star's formal approach to the OFT is contained in a 67-page document and was fully expected. The company appealed to the Office over two years ago when Allianz acquired a 27.8 per cent holding in June 1981. The decision then was that Allianz's 27.8 per cent holding was not against the public interest and the bid was not referred to the Monopolies and Mergers Commission.

Sir Denis Mountain, Eagle

Streeters of Godalming, the public works and civil engineering contractor, announced yesterday that it was in talks which may lead to a full offer. The shares were consequently suspended at 38½p, valuing the group at just under £2.9m.

Streeters has been deeply embroiled for a number of years with arbitration concerning loans to a former associate in Saudi

mission. Sir Denis Mountain said yesterday that Eagle Star was a major financial institution controlling £2.5bn of funds, the bulk of which belonged to policyholders. These funds should not be allowed to fall under the control of a foreign institution by the West German insurance company.

The UK insurance industry is currently expressing concern over the national interest issue. It is pointed out that no UK insurance company could obtain control of a West German insurance company without the move coming under detailed scrutiny by the West German Federal authorities.

This argument is expected to be given prominence when Eagle Star representatives meet OFT officials, possibly later this week. The OFT stated that this bid would be considered fresh and that a decision from Mr Norman Tebbit, Secretary of State for Trade and Industry could be expected before the first closing date of the offer on November 12, 1983.

This bid will present Mr Tebbit with his first major decision on bids since his recent appointment. It will also be the first test of the new guidelines on competition outlined last week by Mr Alex Fletcher, minister responsible for corporate and consumer affairs at the Department of Trade and Industry.

Hogg Robinson in takeover talks with Wakefield Fortune

BY DAVID DODWELL

Hogg Robinson Travel, a subsidiary of the Hogg Robinson insurance group, is at an advanced stage of discussions with Holland America Line on the possible purchase of HAL's wholly-owned UK travel agency group, Wakefield Fortune International.

If the deal were to be successfully completed, it would make Hogg Robinson Travel one of the UK's three largest travel agency businesses, with a combined turnover of about £250m a year.

Hogg Robinson's shares rose by 7p on the London Stock Exchange on news of takeover talks, closing at 130p.

Holland America Line, a privately-owned company with offices in the Netherlands and in Stamford, Connecticut, is understood to have been seeking a buyer for Wakefield Fortune since June—it took 100 per cent control of the company in 1976.

HAL revealed consolidated losses in the first six months of 1983 of \$15.9m (£11.5m), compared with losses of \$2.33m in the first half of 1982. When the figures were disclosed in August, the company said it was "taking necessary steps" to sell "certain assets."

Mr Harry Page, head of the group's financial division, said in Stamford yesterday that problems were rooted in the cruise business, particularly in North America where intense competition was eroding profitability. Earlier this month, HAL announced the sale of two 750-passenger luxury cruise ships to the Tung Group of Hong Kong for an undisclosed sum.

Neither Wakefield Travel nor Hogg Robinson Travel were prepared yesterday to comment on the likelihood of any deal being successfully concluded.

It was nevertheless disclosed that talks had been in progress for about 10 weeks, and that

barring fresh obstacles, a settlement could be reached within the week.

At present, Wakefield Fortune and Hogg Robinson vie for third place in the informally-calculated rankings of UK travel agents. With just under 100 outlets apiece, they lag far behind Thomas Cook and Piffords which both have more than 300 outlets.

But their turnover — Wakefield reported about £100m in 1982, with Hogg Robinson reporting about £180m — puts them closer to the two market leaders.

Wakefield Fortune is thought to have been only marginally profitable over the past 18 months, but this is in part due to a programme of heavy investment in new technology, and to the acquisition in January 1982 of Blue Star Travel, a subsidiary of the Blue Star Line, for an undisclosed sum — thought to be about £2.5m.

Fairey Exhibitions

Agreement has been reached for the purchase of certain assets of Fairey Exhibitions by the company's senior management. The assets have been bought for around £25,000.

Exhibitions is based at Hamble and is a subsidiary of Fairey Marine, which is a member of the Fairey Holdings group whose parent company is S. Pearson & Son.

The business will be carried on under the name Intex. Mr Dave Flower will be chairman and managing director, Mr Brian Jacobs production director, and Mr Dennis Mason, exhibition director. Mr Flower and Mr Jacobs were respectively director and general manager and production manager of Exhibitions. Mr Mason has come from Fairey Marine.

Intex will retain the previous staff and workforce.

Blumel Bros.

Blumel Bros. says Hammond International Inc. has sold \$33,000 of its ordinary shares and \$99,000 new ordinary shares (14.68 per cent of each class) to Bankley Investment.

Caparo/Brockhouse

Caparo Industries has acquired a further 100,000 ordinary shares in Brockhouse. This brings its holding up to almost 2.95m shares, equal to 17 per cent of the capital.

Audiotronic buys Micro Equipment

Audiotronic Holdings has acquired in a cash and share deal the capital of the Micro Equipment Centre, which trades as wholesalers and retailers of telephone systems and related electronic equipment from its premises in Bath.

The directors are confident that Micro will have a significant impact on the prospects of the Audiotronic group in its policy

of development in the field of communications.

Initially, Audiotronic will pay £112,000 cash, which is equivalent to Micro's net tangible assets (of which £38,000 is net cash), together with a deferred consideration based on the profit achieved by Micro in the year ended September 30 1984.

Granville & Co. Limited

(formerly M. J. H. Nightingale & Co. Limited)
27/28 Lovat Lane London EC1R 6EB Telephone 01-621 1121

Over-the-Counter Market

1982-83	High	Low	Ass. Buy	Ass. Sell	Company	Price	Change	Div. (%)	Fully Paid
136	136	136	136	136	136	136	136	136	136
137	137	137	137	137	137	137	137	137	137
138	138	138	138	138	138	138	138	138	138
139	139	139	139	139	139	139	139	139	139
140	140	140	140	140	140	140	140	140	140
141	141	141	141	141	141	141	141	141	141
142	142	142	142	142	142	142	142	142	142
143	143	143	143	143	143	143	143	143	143
144	144	144	144	144	144	144	144	144	144
145	145	145	145	145	145	145	145	145	145
146	146	146	146	146	146	146	146	146	146
147	147	147	147	147	147	147	147	147	147
148	148	148	148	148	148	148	148	148	148
149	149	149	149	149	149	149	149	149	149
150	150	150	150	150	150	150	150	150	150
151	151	151	151	151	151	151	151	151	151
152	152	152	152	152	152	152	152	152	152
153	153	153	153	153	153	153	153	153	153
154	154	154	154	154	154	154	154	154	154
155	155	155	155	155	155	155	155	155	155
156	156	156	156	156	156	156	156	156	156
157	157	157	157	157	157	157	157	157	157
158	158	158	158	158	158	158	158	158	158
159	159	159	159	159	159	159	159	159	159
160	160	160	160	160	160	160	160	160	160
161	161	161	161	161	161	161	161	161	161
162	162	162	162	162	162	162	162	162	162
163	163	163	163	163	163	163	163	163	163
164	164	164	164	164	164	164	164	164	164
165	165	165	165	165	165	165	165	165	165
166	166	166	166	166	166	166	166	166	166
167	167	167	167	167	167	167	167	167	167
168	168	168	168	168	168	168	168	168	168
169	169	169	169	169	169	169	169	169	169
170	170	170	170	170	170	170	170	170	170
171	171	171	171	171	171	171	171	171	171
172	172	172	172	172	172	172	172	172	172
173	173	173	173	173	173	173	173	173	173
174	174	174	174	174	174	174	174	174	174
175	175	175	175	175	175	175	175	175	175
176	176	176	176	176	176	176	176	176	176
177	177	177	177	177	177	177	177	177	177
178	178	178	178	178	178	178	178	178	178
179	179	179	179	179	179	179	179	179	179
180	180	180	180	180	180	180	180	180	180
181	181	181	181	181	181	181	181	181	181
182	182	182	182	182	182	182	182	182	182
183	183	183	183	183	183	183	183	183	183
184	184	184	184	184	184	184	184	184	184
185	185	185	185	185	185	185	185	185	185
186	186	186	186	186	186	186	186	186	186
187	187	187	187	187	187	187	187	187	187
188	188	188	188	188	188	188	188	188	188
189	189	189	189	189	189	189	189	189	189
190	190	190	190	190	190	190	190	190	190
191	191	191	191	191	191	191	191	191	191
192	192	192	192	192	192	192	192	192	192
193	193	193	193	193	193	193	193	193	193
194	194	194	194	194	194	194	194	194	194
195	195	195	195	195	195	195	195	195	195
196	196	196	196	196	196	196	196	196	196
197	197	197	197	197	197	197	197	197	197
198	198	198	198	198	198	198	198	198	198
199	199	199	199	199	199	199	199	199	199
200	200	200	200	200	200	200	200	200	200

RESIDENTIAL PROPERTY

Crown Reach

Crown Reach is a new prestige Thames-side development adjacent to Millbank

THE LAST RIVERSIDE 5-BEDROOM HOUSE.

Four double bedrooms, one single, two bathrooms, fully-fitted kitchen, cloakroom, reception room, dining room, sun terrace on all three floors. Spectacular river views. Fitted carpets and curtains. Private entrance with 24-hour porterage, underground parking, private riverside gardens. Interior design and office services available. £395,000. 99-year Crown Lease.

For a personal appointment to view, ring any time, day or night.

Wates 01-821 9387 Hampton & Sons 01-493 8222

AMERICAN EXECUTIVES

seek luxury furnished flats or houses up to £400 per week. Usual fees required. Phillips Kay & Lewis 01-838 2245. Telex: 27846 RESIDE G

CITY OF LONDON

FLATS FOR SALE AND TO LET IN VARIOUS BLOCKS. For full information contact Frank Harris and Co. 240 2430

MOTOR CARS

NEW CARS TOP DISCOUNTS. Without importing. Immediate delivery all makes and models. Leading - HP at low rates. INTERLEAF LTD. Tel: 01-602 4922 (Open Sat 10 am - 1 pm)

OVERSEAS PROPERTY

YOU MUST VISIT

THE INTERNATIONAL PROPERTY & TIME SHARING EXHIBITION

It opens the door to your dream holiday home or investment, both in the UK and worldwide. You will see in glorious detail flats, villas, chalets, condominiums to suit all pockets and tastes. Meet the leading international property and time sharing experts at The Cumberland Hotel, Marble Arch, London W1

Thursday 27 October 11am-9pm
Friday 28 October 11am-9pm
Saturday 29 October 10am-6pm

Organisers: Homes & Travel Abroad Magazine & Holiday Time-Sharing Magazine

SWITZERLAND

LAKE GENEVA—MOUNTAIN RESORTS

YOU can buy apartments in MONTREUX, LAKE GENEVA. Also available in famous mountain resorts: VILLARS, VERBIEZ, LES DIABLETETS, LEysin, CHATEAU D'ODZ. Individual chalets available in lovely CHAMPÉRY, a skiing paradise. Excellent opportunities for 10% interest. Prices from Swiss 200,000 - Liberal mortgages at 6% interest. Developer, c/o Globe Plan SA, Mon-Repos 26, 1005 Lausanne, Switzerland. Tel: (21) 22 35 12 - Telex: 26785 MBLIS CH

ART GALLERIES

AGNEW GALLERY

UK COMPANY NEWS

Wace not up to target—
planning rationalisation

FIRST-HALF 1983 results of the Wace Group show a continuing improvement but they are not as good as the directors anticipated. Operating profit rose from £10,000 to £22,000 and the pre-tax loss was cut from £312,000 to £25,000.

The loss incurred by Friarsgate Studio exceeded the profit made by the rest of the group. "This cannot be allowed to continue" and the directors have plans for the disposal of the business and premises. Reorganisation costs and losses on sale could be as high as £150,000.

The outline budget of the rationalised organisation shows

a healthy profit for 1984, and every effort is being made to achieve these long-awaited results," the directors tell members.

Turnover of the group, which serves the needs of the advertising, printing and graphic arts industries, fell from £2.76m to £2.29m in the half year. The loss was struck after interest paid of £31,000 (£29,000) and exceptional charges of £26,000 (£22,000).

Profitability of all units increased compared with the second half of 1982, with the exception of Composite Graphics and Friarsgate. Expenses have

been reduced in Composite, turnover is recovering and the company has started to trade profitably.

In July trading was poor, but the following two months have exceeded budget with the exception of Friarsgate. For the second half the directors estimate that the operating profits will be sufficient to cover interest payable, and the loss will represent the exceptional expenditure.

For the full year 1983 the group incurred a loss of £208,000 (£206,000) including exceptional expenditure. No dividend has been paid since the final of 0.72p in June 1981.

Humber Fertilisers
achieves 110% rise
in full year profits

Humber Fertilisers, Britain's largest manufacturer of organic based fertilisers, achieved a 110 per cent increase in full year pre-tax profits from £88,886 to £144,995.

Sales for the 12 months to June 30 1983 improved from £2.77m to £2.9m and operating profits emerged higher at £174,942 against £110,249. The pre-tax result was struck after interest of £29,947 compared with £41,353.

Organic based fertiliser sales, of this unquoted company, increased by over 23 per cent at a time of difficult market trading conditions, say the directors.

They add that they have continued to improve the operation of the manufacturing process, particularly with the introduction of microprocessor based mixing plant. This has improved the efficiency and accuracy of the mixing process, they say.

They state that the programme of improvements has continued into the current year, and approximately £100,000 has been spent reorganising and centralising the bagging unit.

The company now has a network of more than 60 selling agents supported by four area sales managers covering the whole of the UK.

This improved coverage and co-ordination, together with the product improvements undertaken, has been reflected in increased sales achieved to date, they say.

As at June 30 net current assets stood at £453,307, up from £397,328, and shareholders' funds are shown as rising from £742,087 to £854,742 with a £112,655 surplus carried over from the profit and loss account (loss £26,287).

During the year there was an increase in net working capital of £111,661 compared with £375,181.

Another 117 companies wound up

Compulsory winding up orders against 117 companies have been made by Mr Justice Nourse in the High Court.

They were: Vose, Premier Word Processing Agencies, Wald-Quelle (UK), T. Sweeney & Co.

Ambograde, F. C. Smith (Bermundsey), V. I. P. Homes, Barbird, Heathrow Mercantile, Dustmead, K. C. L. East West (Smithfield), Little Rock, Computing Techniques (International), Computing Techniques, Graham Blakeley Auto Electric.

H. & H. Haulage, Ashton Gas Services (Slough), Hopmore Builders, Moststar, Cavendish

Sales Cassette Centre, Image Exhibition Services.

Roblesse Securities, R. C. Seal & Co., Soundhurst, Lucerne Restaurant (Bournemouth), Flashamber, Project Sales and Marketing, Circuit Productions.

Hizon, Cromagnon, Glean-Dean, Gims and Fraser, Fast Form (Automotive Products), A. and F. Developers, Empire House, Stone Facings (Rochdale), Hillside, Hidden Exporters, Mura Electronics UK, Sweetday.

Warrensgore, Tralee House, Queenpar, Keymar Builders, Beacon Import-Export, Dupac Transport & Trading.

Newman Transport Services, Locana Leasing, S. B. W. Trading (Fancy Goods), E. Berton and Son, Eitrox Engineering, Angela Hartford, Kexion.

Vouchmark, Costa Blanca Investments, T. M. C. (Realisations), Alpinegrove, Reid-Jones, Private Spy, Decision Base Learning Systems.

Radnall Orton, AEC Electric Hand Dryer Servicing Company, Kepbourne, I. Richmond (Luton), Mervyn Mark (Bathurst).

Frank Wright Shoes, Red Cars, Vickey, Pledgewarren, Ada Catering, Avon Fashions, Senarta Lee.

R. G. Twyman, Edgar Davies (Surgical), Rightsteel, Gold Star Window Cleaning Contractors, Millbank Cleaning Co., Ellison Tailorcraft, Graham Roberts.

Jencrose, Woodrow Wilson & Co., Exam, Royce Fashions Manufacturing Co, Waste Lubricating Oils, Arrowplate.

The Colchester Restaurant and Bar, Co. ICC Engineering, Modern Filtration, Compleat Audio Systems, Intervideo.

Motorhaul, CMI Consolidated Mercantile International, Lenonics (Laboratories), Butler Trading (Southsea), Hologram Recording, Essex Vehicle Repair Centre, Showsigns.

Cravenland, Thermofarm, Midward, Mepal Trophy Roofing, Ternifreight International, Anglo International, Anglo Services, Hurstvale Haulage, Elizabeth Keyes, Calvin Antiques, John Elkins (Trussed Rafter), Ecco Jewellery, Bland Engineering.

Cube Industries, Elcrest Hotels, L. Toller, The Moss Gear Company, S. Brogan Paper Suppliers, J. C. & W. Smith (Fuel Recovery), Vetralla (UK).

A compulsory winding up order made on October 10 against Lela Trading Co was rescinded and the petition dismissed by consent.

Delta
Medallion
Business Class
to Atlanta.
Luxury at
a saving.

- New wider seats are long on comfort
- Choice of gourmet entrées and desserts
- Elegant china service
- Cocktails, fine wines, champagne, liqueurs
- Separate cabin area
- All 2-by-2 seating
- Priority disembarkation and baggage service
- Increased baggage allowance

Delta Wide-Ride® TriStars fly non-stop from London to Atlanta, Frankfurt to Atlanta daily and on to 80 U.S.A. cities. First Class accommodations with Sleeper Seats are also available.

For reservations call your Travel Agent. Or call Delta in London on (01) 688-0535 or (01) 688-2185. Or call Delta in Frankfurt on (01) 23 30 34. Delta Ticket Offices are at 140 Regent Street, London, W1R 6AT and Friedenstrasse 7, 6000 Frankfurt/Main. Schedules are from London and Frankfurt and are subject to change without notice.

Delta. The airline run by professionals.

Border & Southern

At September 30, 1983 net asset value per 10p share of the Border & Southern Stockholders Trust totalled 166.5p, against 116.5p after prior charges at par and 167.5p compared with 117.5p, after prior charges at market value.

Earnings for the year to end-September declined from 3.5p to 3.25p per share. A final dividend of 1.85p (1.7p) lifts the net total to 3.15p (3p).

Available profits amounted to £2.25m (£2.47m) after tax of £1.90m (£2.15m).

Japan Assets Trust

A dividend of 0.05p net has been declared by Japan Assets Trust for the year to September 30 1983. A payment of 0.1p was made in the previous 14 months. Net asset value per 10p share improved from 127.2p to 45.14p and earnings per share were 0.1p against 0.15p.

Unfranked investment income for the year was up from £124,000 to £168,000, but deposit income fell from £283,000 to £18,000. Expenses accounted for £187,000 against £120,000 and the tax charge was halved at £16,000.

English National

At September 30, net asset values relating to shareholders of English National Investment Company have risen to 196.5p from the 170.8p of 12 months earlier, and for deferred ordinary it is up to 121.5p, against 85.5p.

For the half year ended September 30 1983 net income rose from £75,000 to £250,000, after tax of £20,000 (£25,000). Gross income came to £156,000 (£144,000). Earnings for the preferred were 5.35p (£48p) and for the deferred 2.87p (£21p). The interim dividend on the preferred is lifted to 4.4p (£25p) while deferred holders receive 1.85p (£18p).

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interim or final and the subsidiaries shown below are based mainly on last year's timetable.

TODAY
Interim: Advance Securities, Avana, Bessy and Hewitt, Border Securities (Wrexham), Fearn Brothers Clothing, Gill and Duffus, Henderson Group, TR Natural Resources Investment Trust, Wire and Plastic Products.
Final: Acacia Jewellery, British Assets Trust, David Dixon, Rowland Gaunt, Manson Finance Trust, TR Australia Investment Trust.

FUTURE DATES
Interim:
Forum and Mason Nov 4
Globe Nov 3
Goldberg (A) Nov 4
Lined Nov 9
Pittsington Brothers Dec 7
Final:
Associated Heat Services Nov 12
Aust Fidelity Nov 22
Newport (J.) Nov 2
Harmen Smith Nov 2
Fraswell Parker Nov 1

Lister sees improvement

REORGANISATION of production facilities and rationalisation of the product range of textiles manufacturer Lister & Company in recent years are enabling the group to take advantage of increased demand through increased productivity, Mr John Segal, chairman, tells shareholders in his annual statement.

This gives the directors confidence in the future, and accounts for the return to profit — as reported on October 5 — in the second half of the year to March 26 1983, he explains.

The second half profits of £47,000 (£31,000) reduced the loss for the year to £272,000 (profits £100,000). With the loss

per 25p share given as 2.20p (earnings 0.56p) the year's dividend was held at 0.1p net.

At the year end shareholders' funds had risen from £12.97m to £20.91m following a surplus on the revaluation of properties of £9.25m, and there was loan capital outstanding of £7.2m (£1.5m).

Fixed assets were valued at £27.56m (£17m) and net current assets came to £312,000 (liabilities £3.44m) including overdrafts of £3.26m (£2.62m). During the year there was an increase in working capital of £3.9m (£131,000) including a rise in net liquid funds of £4.74m (fall £1.15m).

Ferry Pickering starts confidently

A satisfactory first quarter is reported by Mr P. G. Nixon, chairman of Ferry Pickering Group, the printing, packaging and publishing concern.

In his annual report, Mr Nixon says the current financial year has opened with the same seasonal pattern as last, with a satisfactory first quarter and a second which "looks to be very good indeed".

It is the group's intention now to develop new markets to

enable it to maintain higher machine loadings throughout the year.

As known, pre-tax profits were down from £1.47m to £1.37m in the year to June 30, 1983. The balance sheet shows shareholders' funds up from £8.25m to £5.91m. Net current assets were £2.43m against £2.96m.

There was an increase in net liquid funds of £120,177 (£436,378 decrease). Meeting: Leicester, November 14, noon.

DKB ECONOMIC REPORT
October 1983: Vol. 12, No. 103-year old recession in Japan has ended,
but export-led recovery could be fragile

The Economic Planning Agency on September 1, in its monthly business diffusion index, also announced the turnaround of Japan's three-year-old recession. The Agency said the previous business peak was observed in February 1980 and the trough in February 1982.

The length of the latest recession — more than three times that of the past average of 11.2 months — indicates the magnitude of the second oil shock. Because of the unusually long recession, corporate hopes for business recovery are now all the stronger.

According to the Short-term Economic Survey of Principal Corporations conducted by the Bank of Japan in August, Japanese corporations in manufacturing industries expect gains of 6.4 per cent in sales and 33.9 per cent in profit for the second half of fiscal 1983 over the first half, and those in non-manufacturing industries anticipate gains of 5.7 per cent and 29.2 per cent, respectively.

Increased exports sustain production recovery

Japan's economic recovery since this spring has been supported by brisk exports. In August, exports seasonally adjusted rose 5.7 per cent, after dipping 1.2 per cent in the October-December quarter of 1982, increased by 5.1 per cent in the January-March quarter and by 3.2 per cent in the April-June quarter over the preceding terms.

Exports in July dipped 0.3 per cent from June but rose sharply — by 5.1 per cent — in August over July.

On the other hand, imports are marking time, with the result that the cumulative trade surplus at the end of the April-July period reached \$12 billion. If exports continue to expand at the current pace, trade and current account surpluses both will set new all-time records.

Production and shipments have been on the upswing since the start of this year. This is due largely to the recovery of exports.

Export shipments rose 5.1

per cent in the January-March quarter and 2.6 per cent in April-June over the preceding quarters, whereas domestic shipments registered minimal increases of 0.5 per cent and 0.7 per cent in the first two quarters of this year.

External demand accounted for almost 100 per cent of the increase in shipments in the January-March quarter and for about 80 per cent in the April-June quarter, according to MITI's "Mining and Manufacturing Production Index." Conversely, it may be said that domestic demand has not emerged from its stagnation yet.

Some improvement in corporate business outlook

As shown in the diagram, corporations have become more optimistic about business prospects. The outlook as seen by export-oriented firms, such as machinery, automobile and textile companies, has brightened conspicuously. However, the ceramics, construction, real estate and retail industries take a gloomy view, mirroring the sluggishness of domestic demand. Medium and smaller firms in the manufacturing sector have become more optimistic, but those in the non-manufacturing sector, which is relatively less connected with exports, is grim in its judgment of prospects. Thus optimism and pessimism are clearly divided along industrial lines.

Assessment of the business outlook by almost all industries and companies of all sizes is that it will take a turn for the better. However, for this to become a reality, increased production — triggered by increased exports — will have to generate a gain not only in corporate earnings but also in personal income and, further, stimulate corporate investment and household expenditures. What are the possibilities?

First, household expenditures. The growth of real disposable income of worker households is minimal. Reflecting this, real consumption expenditures have been sluggish, rising only 1.3 per cent in the January-March quarter and 0.2 per cent in the April-June quarter over the previous year's levels. Compared with 1982, real consumption expenditures of all households dipped 1.1 per cent in the April-June quarter after rising 1.2 per cent in the January-March quarter.

Sales of large retail stores in July increased over July 1982 by a sizeable 4.9 per cent, the first high growth recorded since last October. This was due primarily to brisk sales of home air-conditioners and electric appliances (up 17.0 per cent from the 1982 level).

Stepped-up sales of these items were attributable largely to the heat wave that hit Japan from late July through August.

Considering that the year-to-year increase in nominal wages in July was 3.6 per cent, however, the marked growth of consumption spending in July must be regarded as only a temporary phenomenon.

Turning to plant and equipment investment, the Bank of Japan's Short-term Economic Survey in August showed that investment by principal corporations in all industries dipped 0.5 per cent in the first half of fiscal 1983 from the preceding half-year period, and that investment plans for the second half are 3.4 per cent smaller than for the first half.

When compared with the bank's May survey, which had indicated that investment would be off by 6.3 per cent in the second half, an upward revision of capital investment plans for the second half is noticeable. This is probably because profit is expected to rise in the second half due to higher selling prices and other factors.

Relaxation of corporate finance to continue.

The underlying tone of corporate finance continues to be easy. The money supply (average outstanding balance of M₁+C_D) increased by 7.6 per cent

PRITCHARD
SERVICES GROUP PLC

one of the world's largest cleaning, maintenance and security companies with a staff of 70,000 operating from 450 branches in over 20 countries

has acquired



Food Concepts Inc.

the largest, privately-owned food service management company in New York, New Jersey and Connecticut with revenues of over \$30 million.

The undersigned initiated this transaction and assisted with the negotiations.

Trabel Associates Limited,
23, Heron Place,
9, Thayer Street,
LONDON W1M 5LF
01-486-6401

British American Consultants Inc.,
Suite 403,
1665 Palm Beach Lakes Boulevard,
West Palm Beach, Florida 33401
305-689-8998

25th October 1983

FLOGAS plc
(Incorporated in the Republic of Ireland under the Companies Act 1963)
No. 80035

SHARE CAPITAL

Authorised 3,000,000 In 30,000,000 ordinary shares of IR10p each 1,621,675.30

In connection with a placing by Simon & Coates and Development Capital Corporation Limited, Dublin, of 4,900,292 Ordinary shares of IR10p each at IR77p (equivalent to 61.5p sterling) per share, application has been made to the Council of The Stock Exchange for the grant of permission for the whole of the issued share capital of Flogas plc to be dealt in on the Unlisted Securities Market. A proportion of the shares being placed are available to the public through the market. It is emphasised that no application has been made for these securities to be admitted to official listing. Particulars relating to the company are available in the Extel Statistical Services and copies of the Prospectus may be obtained during normal business hours on any weekday (Bank Holidays and Saturdays excepted) up to and including 14th November 1983 from:

Simon & Coates
Development Capital Corporation Limited
1 London Wall Buildings, London EC2M 5PT
J. & E. Davy
DCC House, Sullorgan, Blackrock, Co. Dublin 63 Dawson Street, Dublin 2

(Advertisement)

DKB ECONOMIC REPORT
October 1983: Vol. 12, No. 103-year old recession in Japan has ended,
but export-led recovery could be fragile

The Economic Planning Agency on September 1, in its monthly business diffusion index, also announced the turnaround of Japan's three-year-old recession. The Agency said the previous business peak was observed in February 1980 and the trough in February 1982.

The length of the latest recession — more than three times that of the past average of 11.2 months — indicates the magnitude of the second oil shock. Because of the unusually long recession, corporate hopes for business recovery are now all the stronger.

According to the Short-term Economic Survey of Principal Corporations conducted by the Bank of Japan in August, Japanese corporations in manufacturing industries expect gains of 6.4 per cent in sales and 33.9 per cent in profit for the second half of fiscal 1983 over the first half, and those in non-manufacturing industries anticipate gains of 5.7 per cent and 29.2 per cent, respectively.

Increased exports sustain production recovery

Japan's economic recovery since this spring has been supported by brisk exports. In August, exports seasonally adjusted rose 5.7 per cent, after dipping 1.2 per cent in the October-December quarter of 1982, increased by 5.1 per cent in the January-March quarter and by 3.2 per cent in the April-June quarter over the preceding terms.

Exports in July dipped 0.3 per cent from June but rose sharply — by 5.1 per cent — in August over July.

On the other hand, imports are marking time, with the result that the cumulative trade surplus at the end of the April-July period reached \$12 billion. If exports continue to expand at the current pace, trade and current account surpluses both will set new all-time records.

Production and shipments have been on the upswing since the start of this year. This is due largely to the recovery of exports.

Export shipments rose 5.1

per cent in the January-March quarter and 2.6 per cent in April-June over the preceding quarters, whereas domestic shipments registered minimal increases of 0.5 per cent and 0.7 per cent in the first two quarters of this year.

External demand accounted for almost 100 per cent of the increase in shipments in the January-March quarter and for about 80 per cent in the April-June quarter, according to MITI's "Mining and Manufacturing Production Index." Conversely, it may be said that domestic demand has not emerged from its stagnation yet.

Some improvement in corporate business outlook

As shown in the diagram, corporations have become more optimistic about business prospects. The outlook as seen by export-oriented firms, such as machinery, automobile and textile companies, has brightened conspicuously. However, the ceramics, construction, real estate and retail industries take a gloomy view, mirroring the sluggishness of domestic demand. Medium and smaller firms in the manufacturing sector have become more optimistic, but those in the non-manufacturing sector, which is relatively less connected with exports, is grim in its judgment of prospects. Thus optimism and pessimism are clearly divided along industrial lines.

Assessment of the business outlook by almost all industries and companies of all sizes is that it will take a turn for the better. However, for this to become a reality, increased production — triggered by increased exports — will have to generate a gain not only in corporate earnings but also in personal income and, further, stimulate corporate investment and household expenditures. What are the possibilities?

First, household expenditures. The growth of real disposable income of worker households is minimal. Reflecting this, real consumption expenditures have been sluggish, rising only 1.3 per cent in the January-March quarter and 0.2 per cent in the April-June quarter over the previous year's levels. Compared with 1982, real consumption expenditures of all households dipped 1.1 per cent in the April-June quarter after rising 1.2 per cent in the January-March quarter.

Sales of large retail stores in July increased over July 1982 by a sizeable 4.9 per cent, the first high growth recorded since last October. This was due primarily to brisk sales of home air-conditioners and electric appliances (up 17.0 per cent from the 1982 level).

Stepped-up sales of these items were attributable largely to the heat wave that hit Japan from late July through August.

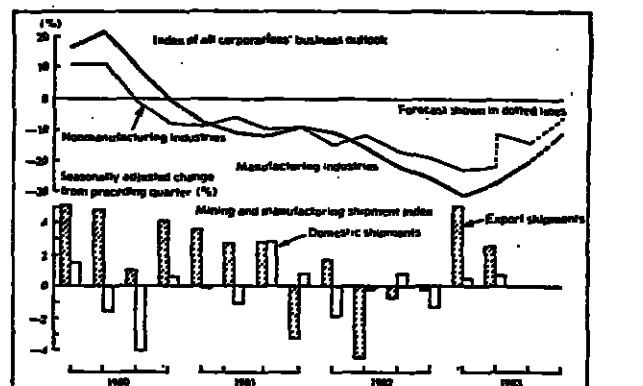
Considering that the year-to-year increase in nominal wages in July was 3.6 per cent, however, the marked growth of consumption spending in July must be regarded as only a temporary phenomenon.

Turning to plant and equipment investment, the Bank of Japan's Short-term Economic Survey in August showed that investment by principal corporations in all industries dipped 0.5 per cent in the first half of fiscal 1983 from the preceding half-year period, and that investment plans for the second half are 3.4 per cent smaller than for the first half.

When compared with the bank's May survey, which had indicated that investment would be off by 6.3 per cent in the second half, an upward revision of capital investment plans for the second half is noticeable. This is probably because profit is expected to rise in the second half due to higher selling prices and other factors.

Relaxation of corporate finance to continue.

The underlying tone of corporate finance continues to be easy. The money supply (average outstanding balance of M₁+C_D) increased by 7.6 per cent

IMPROVED CORPORATE ASSESSMENT OF
BUSINESS OUTLOOK

(Source) Bank of Japan, "Short-term Economic Survey of Principal Corporations".
(Note) 1. As the number of non-manufacturing corporations covered in the survey was increased beginning in August, the line is not continuous.
2. The survey on corporate business outlook is conducted in February, May, August and November each year. The diagram shows the quarterly average.

in both the January-March and April-June quarters over the preceding quarters, exceeding the nominal GNP growth rate of about 5 per cent annum.

Corporate demand for funds is weak due to the slowdown in capital investment and the trimming of inventories. Financial institutions, on the other hand, are eager to lend money, so there is a growing feeling of easy fund positions among businesses.

Consumption gains in production indicators

There are many factors that do not warrant optimism about the future of Japan's macro-economy.

However, data on individual industries and commodities indicate a glimmer of hope not only for the so-called advanced industries but also for industries that have suffered from the recession.

The industries whose production index is more than 40 per cent higher than in the base year (1980) and whose year-to-year production growth in June was greater than 10 per cent are all advanced industries such as business machines, radio/television, audio equipment, communication/electric parts and components, semiconductor elements, integrated circuits, computers, timepieces, and photo sensitized supplies.

All of them are benefitting from a marked increase in both domestic and external demand for their goods.

Even among the structurally distressed industries the steel industry has begun to see a ray of hope as a result of the substantial drop in inventory-sales

ratio and the rally in its production since this spring; non-ferrous metals and textiles have successfully lowered their inventory-sales ratio, although an increase in production is not yet evident.

Business management's expectation of recovery stems from the improved outlook of the microeconomy. This accounts for the fact that corporate business outlook is not based entirely on macroeconomic factors — typically, the real economic growth rate.

Considering that the total economic pie has become bigger, recovery in the service sector has become active — although figures on its activities are not available in conventional statistics — there is ample possibility that corporate assessment of business prospects will continue to rise for the time being.

The three-year recession has finally ended. Microeconomic indicators have gained brightness. The tempo of economic recovery in the United States is surprisingly fast.

It should be noted, however, that Japan's takeoff from the recession depends largely on the recovery of her exports, and that the U.S. economy is still fettered by high real interest rates, which deter a full-pledged recovery based

NEW YORK STOCK EXCHANGE 26-28
AMERICAN STOCK EXCHANGE 27-28
WORLD STOCK MARKETS 28
LONDON STOCK EXCHANGE 29-32
UNIT TRUSTS 32-33
COMMODITIES 34
CURRENCIES 35
INTERNATIONAL CAPITAL MARKETS 36

SECTION III - INTERNATIONAL MARKETS

FINANCIAL TIMES

Wednesday October 26 1983

KEY MARKET MONITORS

End Month Figures

FT-Actuaries All-Share Index

Index	Oct 25	Previous	Year ago
FT Ind Ord	430.95	429.87	372.77
FT-A All-shares	457.08	454.53	411.84
FT-A 500	421.48	418.96	380.35
FT Ind mines	527.1	520.8	390.9
FT Govt secs	81.60	81.43	83.41

STOCK MARKET INDICES

Index	Oct 25	Previous	Year ago
NEW YORK			
DJ Industrials	1252.44	1248.98	955.13
DJ Transport	590.57	589.29	421.84
DJ Utilities	139.60	139.07	119.55
S&P Composite	165.47	165.99	133.32
LONDON			
FT Ind Ord	430.95	429.87	372.77
FT-A All-shares	457.08	454.53	411.84
FT-A 500	421.48	418.96	380.35
FT Ind mines	527.1	520.8	390.9
FT Govt secs	81.60	81.43	83.41
TOKYO			
Nikkei-Dow	9232.77	9280.16	7304.92
Tokyo Sec	676.07	675.57	545.84
AUSTRALIA			
All Ord	677.0	682.7	508.8
Metals & Mins.	503.0	507.8	405.4
AUSTRIA			
Credit Aktien	54.35	54.39	47.85
BEELGIAN			
Belgian SE	124.52	124.77	98.65
CANADA			
Toronto Composite	2416.1	2422.3	1758.3
Industrial	429.90	430.49	318.75
Combined	410.87	411.44	312.45
DENMARK			
Copenhagen SE	191.57	191.57	91.81
FRANCE			
CAC Gen	140.6	139.9	99.8
Ind. Tendance	148.7	147.7	117.9
WEST GERMANY			
FAZ-Aktien	349.08	337.27	292.51
Commerzbank	1017.5	995.5	703.6
HONG KONG			
Hang Seng	772.92	767.79	632.68
ITALY			
Banca Com.	184.51	183.79	168.05
NETHERLANDS			
ANP-CBS Gen	140.5	139.9	98.0
ANP-CBS Ind	114.5	114.3	74.1
NORWAY			
Oslo SE	208.2	209.03	105.4
SINGAPORE			
Straits Times	948.82	954.54	725.57
SOUTH AFRICA			
Gold	740.7	733.3	729.5
Industrials	904.0	905.0	695.3
SPAIN			
Madrid SE	121.89	121.62	100.55
SWEDEN			
J & P	1402.54	1387.98	752.82
SWITZERLAND			
Swiss Bank Ind	342.0	341.2	255.3
WORLD			
Capital Int'l	179.2	180.0	147.1
GOLD (per ounce)			
London	\$386.52	\$386.12	
Frankfurt	\$386.25	\$385.00	
Zurich	\$386.50	\$384.50	
Paris (Baring)	\$386.21	\$384.14	
Luxembourg (Baring)	\$387.40	\$386.50	
New York (Oct)	\$387.50	\$386.50	

CURRENCIES

Currency	Oct 25	Previous	Oct 25	Previous
U.S. DOLLAR				
(London)				
DM	2.8075	2.8095	1.499	1.4995
S	232.5	233.25	348.75	350.0
Yen	7.955	7.955	11.9225	11.925
Sfr	2.118	2.1175	3.175	3.1775
SwFr	2.9275	2.9285	4.39	4.395
Quilider	1584.75	1586.25	2375.0	2378.5
BP	53.16	53.25	79.7	79.85
CS	1.23225	1.23225	1.847	1.843
INTEREST RATES				
Euro-currencies				
(three month offered rate)				
£			9%	9%
SwFr			4%	4%
DM			5%	5%
FFr			13%	13%
FT London Interbank fixing				
(offered rate)				
3-month U.S.\$			9%	9%
6-month U.S.\$			9%	9%
U.S. Fed Funds			9%	9%
U.S. 3-month CDs			9.30	9.25
U.S. 3-month T-bills			8.65	8.65
U.S. BONDS				
Treasury				
Oct 25				
Price			Yield	
10% 1985	99%	10.58	99%	10.84
11% 1990	99%	11.55	99%	11.54
11% 1993	101%	11.65	101%	11.83
12 2013	102%	11.72	102%	11.69
Corporate				
Oct 25				
Price			Yield	
AT & T			11.55	94
10% June 1990	94.23	11.55	94	11.70
3% July 1990	68%	10.50	68%	10.50
8% May 2000	75%	12.05	75	12.15
Xerox				
10% March 1993	92.53	11.95	92%	12.00
Diamond Shamrock				
10% May 1993	91	12.25	91	12.20
Federated Dept Stores				
10% May 2013	87.132	12.25	86%	12.30
Abbot Lab				
11.80 Feb 2013	96.395	12.25	96.395	12.25
Alcoa				
12% Dec 2012	96.16	12.75	96.16	12.75
FINANCIAL FUTURES				
CHICAGO				
U.S. Treasury Bonds (CBT)				
December	70-29	71-05	70-18	71-03
U.S. Treasury Bills (BMB)				
\$1m points of 100%				
December	91.11	91.12	91.04	91.07
Certificates of Deposit (BMB)				
December	90.42	90.44	90.35	90.40
LONDON				
Three-month Eurodollar				
\$1m points of 100%				
December	90.26	90.28	90.24	90.27
20-year National Gilt				
\$50,000 32nds of 100%				
December	107-08	107-09	106-25	106-28
COMMODITIES				
(London)				
Oct 25				
Price			Yield	
Silver (spot fixing)			839.10p	842.20p
Copper (cash)			\$249.50	\$257.50
Coffee (Nov)			\$1896.50	\$1932.00
Oil (spot Arabian light)			\$28.85	\$28.85

STOCK MARKET INDICES

Index	Oct 25	Previous	Year ago
NEW YORK			
DJ Industrials	1252.44	1248.98	955.13
DJ Transport	590.57	589.29	421.84
DJ Utilities	139.60	139.07	119.55
S&P Composite	165.47	165.99	133.32
LONDON			
FT Ind Ord	430.95	429.87	372.77
FT-A All-shares	457.08	454.53	411.84
FT-A 500	421.48	418.96	380.35
FT Ind mines	527.1	520.8	390.9
FT Govt secs	81.60	81.43	83.41
TOKYO			
Nikkei-Dow	9232.77	9280.16	7304.92
Tokyo Sec	676.07	675.57	545.84
AUSTRALIA			
All Ord	677.0	682.7	508.8
Metals & Mins.	503.0	507.8	405.4
AUSTRIA			
Credit Aktien	54.35	54.39	47.85
BEELGIAN			
Belgian SE	124.52	124.77	98.65
CANADA			
Toronto Composite	2416.1	2422.3	1758.3
Industrial	429.90	430.49	318.75
Combined	410.87	411.44	312.45
DENMARK			
Copenhagen SE	191.57	191.57	91.81
FRANCE			
CAC Gen	140.6	139.9	99.8
Ind. Tendance	148.7	147.7	117.9
WEST GERMANY			
FAZ-Aktien	349.08	337.27	292.51
Commerzbank	1017.5	995.5	703.6
HONG KONG			
Hang Seng	772.92	767.79	632.68
ITALY			
Banca Com.	184.51	183.79	168.05
NETHERLANDS			
ANP-CBS Gen	140.5	139.9	98.0
ANP-CBS Ind	114.5	114.3	74.1
NORWAY			
Oslo SE	208.2	209.03	105.4
SINGAPORE			
Straits Times	948.82	954.54	725.57
SOUTH AFRICA			
Gold	740.7	733.3	729.5
Industrials	904.0	905.0	695.3
SPAIN			
Madrid SE	121.89	121.62	100.55
SWEDEN			
J & P	1402.54	1387.98	752.82
SWITZERLAND			
Swiss Bank Ind	342.0	341.2	255.3
WORLD			
Capital Int'l	179.2	180.0	147.1
GOLD (per ounce)			
London	\$386.52	\$386.12	
Frankfurt	\$386.25	\$385.00	
Zurich	\$386.50	\$384.50	
Paris (Baring)	\$386.21	\$384.14	
Luxembourg (Baring)	\$387.40	\$386.50	
New York (Oct)	\$387.50	\$386.50	

CURRENCIES

Currency	Oct 25	Previous	Oct 25	Previous
U.S. DOLLAR				
(London)				
DM	2.8075	2.8095	1.499	1.4995
S	232.5	233.25	348.75	350.0
Yen	7.955	7.955	11.9225	11.925
Sfr	2.118	2.1175	3.175	3.1775
SwFr	2.9275	2.9285	4.39	4.395
Quilider	1584.75	1586.25	2375.0	2378.5
BP	53.16	53.25	79.7	79.85
CS	1.23225	1.23225	1.847	1.843
INTEREST RATES				
Euro-currencies				
(three month offered rate)				
£			9%	9%
SwFr			4%	4%
DM			5%	5%
FFr			13%	13%
FT London Interbank fixing				
(offered rate)				
3-month U.S.\$			9%	9%
6-month U.S.\$			9%	9%
U.S. Fed Funds			9%	9%
U.S. 3-month CDs			9.30	9.25
U.S. 3-month T-bills			8.65	8.65
U.S. BONDS				
Treasury				
Oct 25				
Price			Yield	
10% 1985	99%	10.58	99%	10.84
11% 1990	99%	11.55	99%	11.54
11% 1993	101%	11.65	101%	11.83
12 2013	102%	11.72	102%	11.69
Corporate				
Oct 25				
Price			Yield	
AT & T			11.55	94
10% June 1990	94.23	11.55	94	11.70
3% July 1990	68%	10.50	68%	10.50
8% May 2000	75%	12.05	75	12.15
Xerox				
10% March 1993	92.53	11.95	92%	12.00
Diamond Shamrock				
10% May 1993	91	12.25	91	12.20
Federated Dept Stores				
10% May 2013	87.132	12.25	86%	12.30
Abbot Lab				
11.80 Feb 2013	96.395	12.25	96.395	12.25
Alcoa				
12% Dec 2012	96.16	12.75	96.16	12.75
FINANCIAL FUTURES				
CHICAGO				
U.S. Treasury Bonds (CBT)				
December	70-29	71-05	70-18	71-03
U.S. Treasury Bills (BMB)				
\$1m points of 100%				
December	91.11	91.12	91.04	91.07
Certificates of Deposit (BMB)				
December	90.42	90.44	90.35	90.40
LONDON				
Three-month Eurodollar				
\$1m points of 100%				
December	90.26	90.28	90.24	90.27
20-year National Gilt				
\$50,000 32nds of 100%				
December	107-08	107-09	106-25	106-28
COMMODITIES				
(London)				
Oct 25				
Price			Yield	
Silver (spot fixing)			839.10p	842.20p
Copper (cash)			\$249.50	\$257.50
Coffee (Nov)			\$1896.50	\$1932.00
Oil (spot Arabian light)			\$28.85	\$28.85

STOCK MARKET INDICES

Index	Oct 25	Previous	Year ago
NEW YORK			
DJ Industrials	1252.44	1248.98	955.13
DJ Transport	590.57	589.29	421.84
DJ Utilities	139.60	139.07	119.55
S&P Composite	165.47	165.99	133.32
LONDON			
FT Ind Ord	430.95	429.87	372.77
FT-A All-shares	457.08	454.53	411.84
FT-A 500	421.48	418.96	380.35
FT Ind mines	527.1	520.8	390.9
FT Govt secs	81.60	81.43	83.41
TOKYO			
Nikkei-Dow	9232.77	9280.16	7304.92
Tokyo Sec	676.07	675.57	545.84
AUSTRALIA			
All Ord	677.0	682.7	508.8
Metals & Mins.	503.0	507.8	405.4
AUSTRIA			
Credit Aktien	54.35	54.39	47.85
BEELGIAN			
Belgian SE	124.52	124.77	98.65
CANADA			
Toronto Composite	2416.1	2422.3	1758.3
Industrial	429.90	430.49	318.75
Combined	410.87	411.44	312.45
DENMARK			
Copenhagen SE	191.57	191.57	91.81
FRANCE			
CAC Gen	140.6	139.9	99.8
Ind. Tendance			

1910		1911		1912		1913		1914		1915		1916		1917		1918		1919		1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933		1934		1935		1936		1937		1938		1939		1940		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950		1951		1952		1953		1954		1955		1956		1957		1958		1959		1960		1961		1962		1963		1964		1965		1966		1967		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2
------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	---

COMPUTERS & ELECTRONICS - 1984

12 October	Scottish Electronic Industry Development
22 October	Communications in Business
31 October	Software and Services
8 November	Mobile Communications
November	Office Equipment
6 December	Electronic Information Services
14 December	Large Computers—the way ahead

Synopses for these Surveys will be available approximately three months prior to publication.
If you wish to have a synopsis or require information on advertising, please contact:

Peter d'Aguilar
Financial Times, Bracken House, 10 Cannon Street, London EC4P 4BY
Tel: 01-248 8000 ext. 4181 Telex: 885033 FINTIM G

FINANCIAL TIMES
EUROPE'S BUSINESS NEWSPAPER

The size, contents and publication dates of all Surveys are subject to change at the discretion of the Editor

Continued on Page 27

هكذا من لأهل

Continued on Page 28

Continued on Page 28

a-dividend also extends b-annual rates of dividend plus stock dividend c-liquidating dividend d-annual dividend e-dividend declared or paid in preceding 12 months f-dividend in Canadian funds, subject to 15% non-resident tax g-dividend declared after split-up or stock dividend h-dividend in listed company i-dividend declared or paid in preceding 12 months j-dividend meeting k-dividend declared or paid that year l-dividend multiple issue with dividends in arrears m-new issue n-dividend in place The high-low range begins with the start of trading, not dividend date o-dividend declared or paid in preceding 12 months p-dividend declared or paid in preceding 12 months plus stock dividend q-dividend stock Dividends begins with date of split s-sales t-sales in arrears u-dividend on stock in preceding 12 months v-dividend in arrears w-dividend or x-distribution after 12 months y-dividend trading holding in bankruptcy or receivership or being reorganized under the Bankruptcy Act, or Securities Actured by the issuer z-dividend on stock in preceding 12 months aa-dividend with warrant ab-ex-dividend or ac-no-dividend ad-dividend with warrant ae-ex-dividend or af-no-dividend ag-dividend with warrant ah-ex-dividend and sales in full ay-full-paid az-sales in full

AMERICAN STOCK EXCHANGE CLOSING PRICES

NEW YORK CLOSING PRICES

DENMARK

Indices

--	--	--	--

FINANCIAL TIMES SUBSCRIPTION RATES

Please send me details of your subscription rates and how to receive the Financial Times regularly

Name _____ Position _____

Company _____ Tel: _____

Address _____ Telex: _____

Card type and send to:
 IN EUROPE: Financial Times (Europe) Ltd., Gohlstrasse 54, D 6000 Frankfurt am Main 1 West Germany - Telephone: Frankfurt 011 371 7888 0 - Telex: 476185
 IN USA: Barbara Wilson, Circulation Manager, Financial Times, 75 Rockefeller Plaza, New York, NY 10019, USA - Telephone: 212 512 2000

The FT Syndication Service provides publications of all sizes with access to the FT's worldwide news-gathering resources and unrivalled editorial expertise.

As a subscriber, your publication could benefit in several ways. You could receive a constant flow of international and City news. You could reproduce news and feature material from the FT itself as well as using specially-prepared syndicated articles. And

you could have instant access to the FT's exhaustive research facilities.

But there's much more to the FT than just business and finance news. We also provide incisive comment on topics such as politics, science and the arts.

The cost? It may well be less than you think.

To find out more, please contact our Syndication Manager, Dennis Kiley, at Bracken House, 10 Cannon Street, London. EC4AP 4BY. Telex no. 8954871.

The FT Syndication Service provides publications of all sizes with access to the FT's worldwide news-gathering resources and unrivalled editorial expertise.

As a subscriber, your publication could benefit in several ways. You could receive a constant flow of international and City news. You could reproduce news and feature material from the FT itself as well as using specially-prepared syndicated articles. And

you could have instant access to the FT's exhaustive research facilities.

But there's much more to the FT than just business and finance news. We also provide incisive comment on topics such as politics, science and the arts.

The cost? It may well be less than you think.

To find out more, please contact our Syndication Manager, Dennis Kiley, at Bracken House, 10 Cannon Street, London. EC4AP 4BY. Telex no. 8954871.

you could have instant access to the FT's exhaustive research facilities.

But there's much more to the FT than just business and finance news. We also provide incisive comment on topics such as politics, science and the arts.

The cost? It may well be less than you think.

To find out more, please contact our Syndication Manager, Dennis Kiley, at Bracken House, 10 Cannon Street, London, EC4P 4BY. Telex no. 8954871.

LONDON STOCK EXCHANGE

MARKET REPORT

Equity leaders and Gilts consolidate early gains
Renewed late U.S. demand for ICI

Account Dealing Dates
Option
First Declared Last Account
Dealing Date Dealing Date
Oct 17 Oct 27 Oct 28 Nov 7
Oct 11 Nov 11 Nov 21 Nov 21
Nov 14 Nov 24 Nov 25 Dec 5

The two main investment areas of London stock markets made a brighter showing yesterday but the volume of business remained at a disappointingly low level. Gilts edged securities moved higher reflecting the Chancellor's confidence over containing Government spending, while leading equities staged a technical advance in sympathy with Wall Street's market late recovery from early weakness on Monday.

Fears of dearer U.S. credit, inevitably revived by Friday's unexpected expansion in U.S. money growth, were shrugged aside by markets. Gilts edged higher as investors were reassured by the Chancellor's assurance that the Government would contain spending plans for 1984-85 to the agreed target of 2.5 per cent. Coming so soon after last week's forecast of lower inflation next year, this attracted renewed support for all funds.

The prospect of a 1 per cent in mortgage rates also stimulated interest with the result that closing gains among medium and long-dated gilts ranged to 1.5 in a more active trade than of late, the shorts ended up to 4 better.

After an initial mark-up, blue chips industrial drifted back as follow-through support failed to materialise. Potential investors were still reluctant to commit fresh funds of any size, being wary of the tense Middle East situation and yesterday's more serious turn of events in the Caribbean.

Latin American debt uncertainty was another worry for markets experiencing a very light business awaiting an announcement of ICI's third-quarter earnings tomorrow.

ICI were particularly strong late on U.S. support and settled 20 higher at 574p. Equity interest otherwise was selective and often confined to one or two sectors along with situation stocks. Stores attracted revived investment inquiries on hopes that any cut in mortgage rates would boost demand late in the Christmas period.

The FT Industrial Ordinary share index mirrored the day's events with a rise of 5.1 at 10 am, followed by a fall to 2.6 by 1 pm before the index picked up again to close 3.7 up on balance at 689.0.

Hogg Robinson good late

Speculation concerning the possible acquisition of Wakefield Travel by Hogg Robinson, a travel insurance broker, Hogg Robinson, which closed 7 higher at 130p. Elsewhere in the insurance sector, Eagle Star rose 5 to 532p following formal rejection of the Allianz offer. Phoenix edged up to 338p and Sun Alliance hardened to 213. The major clearing banks staged a small technical rally. NatWest rose 10 to 587p and

Lloyds improved 5 to 450p. Barclays hardened a couple of pence at 437p, as did Midland, at 390p.

Tottenham Hotspur, having traded at a discount to the offer-for-sale price of 100p since the day after dealings began on October 18, staged a partial rally and closed 4 better at 81p.

Interest in Buildings remained at a low ebb. Housebuilders made an irregular showing with recently built Barratt Developments hardening a couple of pence to 184p, but George Wimpey shedding 3 to 119p. Elsewhere, Barrat and Hallamshire encountered further nervous offerings and shed 35 for a two-day fall of 75 to 190p on talk of an annual profit. Sortall because of the absence of property dealing profits and also changes in accounting practices. John Fianlin edged up to 185p following interim results, while Roberts Adams continued to attract support and put on 10 to a 195p peak of 150p. Dealings in Shares traded (m)...

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

3 pm 690.0 4 pm 691.0 5 pm 691.0

10 am 680.4 11 am 688.4 Noon 688.4 1 pm 687.5

FINANCIAL TIMES STOCK INDICES

	Oct 26	Oct 24	Oct 21	Oct 20	Oct 19	Oct 18	Oct 17	Oct 16
Government Bonds...	81.60	81.43	81.60	81.58	81.19	81.23	81.23	81.23
Corporate Interest...	84.82	84.84	84.86	84.86	84.51	84.51	84.51	84.51
Industrial Bond...	688.0	686.5	689.8	691.0	678.4	678.2	680.0	680.0
Gold Mines...	527.1	520.9	516.0	510.0	521.0	558.1	558.1	558.1
Div. Dividend...	4.92	4.84	4.82	4.81	4.99	4.99	4.99	4.99
Yield, Yld.S (Yield)	9.75	9.81	9.77	9.78	9.80	9.82	10.00	10.00
Radio (net) (%)	12.80	12.76	12.78	12.81	12.85	13.66	13.61	13.61
Volatility	16,013	17,043	17,083	16,868	21,166	21,704	21,704	21,704
Volatility Range Km.	—	13.08	13.08	13.08	13.08	13.08	13.08	13.08
Volatility Range...	—	13,083	13,083	14,111	15,282	15,282	15,282	15,282
Volatility Range (mL)	—	84.7	110.8	106.0	121.2	101.5	101.5	101.5

OIL AND GAS—Continued

Australians

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £700

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £700

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £700

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £700

Cost and risks of the revolution in the cash and credit business

THE COSTS and risks of the revolution in financial services were highlighted yesterday, the second day of the *Financial Times* conference on financial services.

Mastercard and Visa, the world's two largest credit card organisations with well over 100m cardholders between them, should try to pool their resources and avoid costly duplication of payment systems, the conference in London, was told. Otherwise, they could be undercut by new competition.

Mr Charles Ross, president of Visa USA, said banks could not afford the luxury of supporting several systems, and were more likely to retain their market dominance by going for a single global system.

Mr Russell Hogg, president of Mastercard International, proposed that the two cards form a joint venture and share ownership with member banks.

The case for resisting the trend among retailers to issue credit cards and diversify into selling financial services was given by Mr J.

Mr Samuel, the financial director of Marks and Spencer.

Apart from the introduction of a budget account, the UK stores group will continue to accept only cash or cheques, mainly because of the cost of giving credit, though it is interested in systems to charge customers' bank accounts at the point of sale.

Mr Samuel also believes retailers should pick their speciality and then do it well, rather than be tempted to over-diversify and "risk falling by the wayside."

The financial services revolution was in danger of creating a conflict, according to Mr Robert Nicholas, vice-president of Aetna Life and Casualty, the largest publicly owned insurance company in the US.

New products are pouring on to the market but there was a need for more simplicity, he said. Unless they were careful, institutions might end up serving the market more poorly.

Mr Thomas Lyons, executive vice-president of the J. C. Penney stores group, said the revolution

was not unhealthy or unsafe, as some people alleged.

It was increasing competition and helping consumers by supplying them with better products and services, increasing the return on his investments and raising his financial sophistication.

Mr Scott Durward, chief general manager of the Leicesters Building Society, denied that building societies were trying to dominate the banks' traditional deposit and financial services markets. They had to be guided by profitability, however, and be allowed to compete to serve their customers.

Mr Dundas Hamilton, senior partner of Fielding, Newson-Smith, the London stockbrokers, predicted big changes on the London Stock Exchange because of increased competition and regulatory changes. He forecast:

- More mergers among member firms;
- Firms becoming "financial doctors" to serve their clients' investment needs;
- Greater decentralisation thanks

to advances in communication technology.

- Further blurring of demarcation lines between financial institutions; and
- Greater internationalisation of the stock exchange.

Mr David Arnold, senior deputy Comptroller of the Currency, the US bank regulator, said his agency believed "most if not all" remaining legislated geographic and product barriers in financial services should be removed.

There would be a further concentration in the industry and an even higher rate of bank failures - though this could be healthy.

Mr Arnold said, however, that government-sponsored deposit insurance should be modified so that more of the risk of bank failures was shifted to the banks and their customers.

The regulatory system should also be changed, he said, so that financial services were regulated according to what they were, rather than according to who supplied them.

**It's easy to complain
about advertisements.**

A.S.A. Ltd, Brook House, Torrington Place, London WC1E 7HN.

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

[illegible][illegible][illegible]

[illegible]

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Little change apart from a firm yen

The dollar and sterling finished little changed after a weak start in very quiet foreign exchange trading. The early downward move was more an adjustment after Monday's sharp rise than a reaction to any new factor. Expectations of unchanged Federal Reserve monetary policy after Friday's sharp rise in M1 money supply dashed hopes of easier interest rates and events in the Middle East continued to underpin the dollar, while the rise of 1 per cent in the U.S. Consumer Price Index came as no surprise and had no impact.

Sterling was on the sidelines, moving with the dollar, but the Japanese yen was firm following a statement by the Governor of the Bank of Japan on his determination to defend the yen through higher money market rates if necessary.

DOLLAR Trade-weighted index (Base: 1973=100) rose 0.12 to 122.63 against 122.63 six months ago. The dollar has retreated from the peaks touched in August amid hopes that a sustained fall was imminent, following better money supply figures, and a slight easing of interest rates. A large U.S. Budget deficit is likely to restrain the fall in interest rates and the dollar, but downward pressure on the currency will continue due to the substantial trade deficit.

The dollar rose to DM 2.6075 from DM 2.6085 against the

D-mark, and was unchanged at FF 11.9250 against the French franc, but fell to SwFr 2.1180 from SwFr 2.1175 in terms of the Swiss franc, and to Y232.50 from Y232.25 against the yen.

STERLING Trading range against the dollar for 1983 is 1.6235 to 1.6440. September average 1.6391. Trade-weighted index 83.5 against 83.5 at noon, and in the month, 83.6 at the previous close, and 84.0 six months ago. The pound has tended to move with the dollar recently, although a decline against Continental currencies is probably welcomed. It has also reacted to Middle East tension, and its effect on oil supplies, highlighting the pound's status as a petrocurrency.

Sterling traded within a narrow range of \$1.4975 to \$1.5010, and opened and closed

at the same level of \$1.4985-\$1.4995, a fall of 5 points on the day. The pound was unchanged at DM 3.91 but eased slightly to FF 11.9225 from FF 11.9250; SwFr 3.1750 from SwFr 3.1775; and Y348.75 from Y350.

D-MARK Trading range against the dollar in 1983 is 2.7315 to 2.8580. September average 2.6631. Trade-weighted index 127.1 against 126.6 six months ago. The D-mark has improved after falling to its lowest level for nearly 10 years against the dollar in August. As U.S. money supply figures have improved attention has switched towards German money supply growth, which is causing some concern, and encouraging the Bundesbank to keep interest rates high. This, coupled with the strong German economy, is likely to support the D-mark

against its EMS partners and the dollar. The D-mark showed mixed changes at the Frankfurt fixing, in a market tending to lack direction. The Bundesbank did not intervene when the dollar fell to DM 2.6075 from DM 2.6105, after moving in a very narrow range to quiet trading. Sterling fell to DM 3.9030 from DM 3.9120, but members of the EMS were generally firm against the D-mark.

FRENCH FRANC Trading range against the dollar in 1983 is 1.322 to 1.6068. September average 1.4571. Trade-weighted index 67.5 against 67.5 six months ago. The French franc is comfortably placed within the EMS, and has received a boost from improving balance of payments figures, and the first trade surplus in September for more than four years. This should help to restrain any pressures building up for an EMS realignment and has allowed an easing of European interest rates.

The franc was firm against the dollar and most other currencies at the Paris fixing. The dollar fell to FF 11.9110 from FF 11.9250; the D-mark to FF 11.9021 from FF 11.9250; and the Dutch guilder to FF 11.9110 from FF 11.9250. On the other hand the Japanese yen rose to FF 232.50 from FF 232.25.

FINANCIAL FUTURES

Gilts firm

Gilt futures finished on a firm note on the London International Financial Futures Exchange yesterday, boosted by higher cash prices. December delivery opened at 106.25, the lowest level of the day, and touched a peak of 107.00, before closing only slightly lower at 106.75, compared with 106.25 previously.

Good institutional demand was reported in the cash market, with sentiment helped by comments from the Abbey National Building Society about the possibility of lower mortgage rates, and the implication of lower inflation. Sterling's steady performance against the dollar, and its recovery against Continental currencies was also mentioned as an encouraging factor, but overall trading was very quiet.

December Eurodollars opened slightly firmer than the previous

Chicago close implied. This level of 90.24 was the weakest point seen during the day however, and while movements were in a narrow range of 90.24 to 90.25 the market gained some support from a revision of estimates on this week's U.S. M1 money supply figures. This only tends to illustrate the recent difficulty in estimating such a volatile figure, and while some forecasts continue to range up to a rise of \$1bn, others are pointing to a small fall.

The three-month sterling interest rate contract remained very quiet, following another day of stable rates on the London money market, but among currencies the yen gained ground as the Japanese unit improved on the foreign

EMS EUROPEAN CURRENCY UNIT RATES

ECU	Current rate	% change from Oct 25	% change from Oct 25	Difference
Belgian Franc	44.8008	+0.0008	+1.88	+1.8447
Dutch Guilder	3.6033	+0.0033	+0.08	+0.0033
French Franc	6.5596	+0.0096	+0.08	+0.0096
German Mark	1.3663	+0.0063	+0.08	+0.0063
Italian Lira	1.3663	+0.0063	+0.08	+0.0063
Spanish Peseta	166.6667	+0.0067	+0.08	+0.0067
Portuguese Escudo	200.4834	+0.0034	+0.08	+0.0034
Irish Punt	7.8756	+0.0056	+0.08	+0.0056
Swedish Krona	13.7603	+0.0003	+0.08	+0.0003
Swiss Franc	2.0371	+0.0071	+0.08	+0.0071

Changes are for ECU, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

CURRENCY MOVEMENTS

Oct. 25	Bank of England	Morgan Guaranty	Oct. 25	Bank of England	Morgan Guaranty
Starling	85.2	-7.7	Starling	85.2	-7.7
U.S. dollar	184.0	+14.7	U.S. dollar	184.0	+14.7
French franc	117.5	+3.7	French franc	117.5	+3.7
German mark	127.1	+8.0	German mark	127.1	+8.0
Dutch guilder	127.1	+8.0	Dutch guilder	127.1	+8.0
Swiss franc	127.1	+8.0	Swiss franc	127.1	+8.0
Japanese yen	127.1	+8.0	Japanese yen	127.1	+8.0

CURRENCY RATES

Oct. 25	Bank of England	Morgan Guaranty	Oct. 25	Bank of England	Morgan Guaranty
Starling	85.2	-7.7	Starling	85.2	-7.7
U.S. dollar	184.0	+14.7	U.S. dollar	184.0	+14.7
French franc	117.5	+3.7	French franc	117.5	+3.7
German mark	127.1	+8.0	German mark	127.1	+8.0
Dutch guilder	127.1	+8.0	Dutch guilder	127.1	+8.0
Swiss franc	127.1	+8.0	Swiss franc	127.1	+8.0
Japanese yen	127.1	+8.0	Japanese yen	127.1	+8.0

OTHER CURRENCIES

Oct. 25	Bank of England	Morgan Guaranty	Oct. 25	Bank of England	Morgan Guaranty
Starling	85.2	-7.7	Starling	85.2	-7.7
U.S. dollar	184.0	+14.7	U.S. dollar	184.0	+14.7
French franc	117.5	+3.7	French franc	117.5	+3.7
German mark	127.1	+8.0	German mark	127.1	+8.0
Dutch guilder	127.1	+8.0	Dutch guilder	127.1	+8.0
Swiss franc	127.1	+8.0	Swiss franc	127.1	+8.0
Japanese yen	127.1	+8.0	Japanese yen	127.1	+8.0

THE POUND SPOT AND FORWARD

Oct. 25	Day's spread	Close	One month	Three months	% p.a.
U.S.	1.4975-1.5010	1.4985	0.03-0.05	0.04-0.06	-0.49
Canada	1.2650-1.2690	1.2670	0.05-0.07	0.06-0.08	-0.49
Norway	79.40-79.80	79.60	0.05-0.07	0.06-0.08	-0.49
Denmark	14.09-14.13	14.11	0.05-0.07	0.06-0.08	-0.49
Ireland	1.2650-1.2690	1.2670	0.05-0.07	0.06-0.08	-0.49
W. Ger.	3.28-3.32	3.30	0.05-0.07	0.06-0.08	-0.49
Portugal	185.75-187.00	186.375	0.05-0.07	0.06-0.08	-0.49
Spain	166.66-167.00	166.833	0.05-0.07	0.06-0.08	-0.49
Italy	2.272-2.278	2.275	0.05-0.07	0.06-0.08	-0.49
Sweden	10.88-11.02	10.95	0.05-0.07	0.06-0.08	-0.49
France	11.89-11.93	11.91	0.05-0.07	0.06-0.08	-0.49
Norway	11.64-11.67	11.655	0.05-0.07	0.06-0.08	-0.49
Japan	247.35-248.00	247.675	0.05-0.07	0.06-0.08	-0.49
Austria	27.17-27.22	27.195	0.05-0.07	0.06-0.08	-0.49
Switzerland	3.16-3.18	3.17	0.05-0.07	0.06-0.08	-0.49

Belgian rate is for convertible francs. Financial franc 90.55-90.57. Six-month forward dollar rate 27.40-27.55 (spread); 27.48-27.53 (closer).

* Oct 24 - The rate should have read 27.40-27.55 (spread); 27.48-27.53 (closer).

THE DOLLAR SPOT AND FORWARD

Oct. 25	Day's spread	Close	One month	Three months	% p.a.
U.S.	1.4975-1.5010	1.4985	0.03-0.05	0.04-0.06	-0.49
Canada	1.2650-1.2690	1.2670	0.05-0.07	0.06-0.08	-0.49
Norway	79.40-79.80	79.60	0.05-0.07	0.06-0.08	-0.49
Denmark	14.09-14.13	14.11	0.05-0.07	0.06-0.08	-0.49
Ireland	1.2650-1.2690	1.2670	0.05-0.07	0.06-0.08	-0.49
W. Ger.	3.28-3.32	3.30	0.05-0.07	0.06-0.08	-0.49
Portugal	185.75-187.00	186.375	0.05-0.07	0.06-0.08	-0.49
Spain	166.66-167.00	166.833	0.05-0.07	0.06-0.08	-0.49
Italy	2.272-2.278	2.275	0.05-0.07	0.06-0.08	-0.49
Sweden	10.88-11.02	10.95	0.05-0.07	0.06-0.08	-0.49
France	11.89-11.93	11.91	0.05-0.07	0.06-0.08	-0.49
Norway	11.64-11.67	11.655	0.05-0.07	0.06-0.08	-0.49
Japan	247.35-248.00	247.675	0.05-0.07	0.06-0.08	-0.49
Austria	27.17-27.22	27.195	0.05-0.07	0.06-0.08	-0.49
Switzerland	3.16-3.18	3.17	0.05-0.07	0.06-0.08	-0.49

Belgian rate is for convertible francs. Financial franc 90.55-90.57. Six-month forward dollar rate 27.40-27.55 (spread); 27.48-27.53 (closer).

* Oct 24 - The rate should have read 27.40-27.55 (spread); 27.48-27.53 (closer).

EXCHANGE CROSS RATES

Oct. 25	Pound Sterling	U.S. Dollar	Deutsche Mark	Japanese Yen	French Franc	Swiss Franc	Dutch Guilder	Italian Lira	Canada Dollar	Belgian Franc
Pound Sterling	1.0000	1.4985	1.3663	247.675	11.91	3.30	3.76	1.936	0.700	66.667
U.S. Dollar	0.667	1.0000	0.833	166.667	5.165	1.493	1.754	0.937	0.375	33.333
Deutsche Mark	0.736	1.199	1.0000	35.461	5.165	1.493	1.754	0.937	0.375	33.333
Japanese Yen	0.004	0.006	0.003	1.0000	2.466	0.700	0.833	0.375	0.010	0.009
French Franc	0.084	0.194	0.194	0.194	1.0000	0.296	0.344	0.167	0.027	0.023
Swiss Franc	0.667	0.667	0.667	0.667	0.667	1.0000	1.111	0.556	0.037	0.033
Dutch Guilder	0.267	0.267	0.267	0.267	0.267	0.267	1.0000	0.167	0.010	0.009
Italian Lira	0.001	0.001	0.001	0.001	0.001	0.001	0.001	1.0000	0.000	0.000
Canada Dollar	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	1.0000	0.000
Belgian Franc	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	1.0000

MONEY MARKETS

All quiet on most fronts

UK clearing bank base lending rate 9 per cent (effective October 4 and 5). Domestic money markets remained very quiet in London, New York, and most Continental centres, apart from Frankfurt where large amounts of liquidity were drained for the second day running.

London interbank interest rates were virtually unchanged throughout the day in very dull trading, while in New York volume was again in the region of a record low, but may pick up today when the U.S. Treasury refunding programme is announced. Federal funds opened at 9 1/2 per cent, and remained at that level after the Federal Reserve rolled over Monday's injection of funds by supplying another \$2.5bn of repurchase agreements for customer account.

The Bank of England forecast a money market shortage of £250m, but later revised this to £300m.

A fall in the note circulation added to the liquidity, but was outweighed by bills maturing in official hands, repayment of late assistance, and a take-up of Treasury bills from Friday's tender amounting to £236m, plus Exchequer transactions of £50m. Total help provided by the

authorities was £300m. Before lunch the Bank of England bought £156m bills by way of £27m bank bills in hand 2 (18-33 days maturity) at 9 per cent; £7m bank bills in hand 3 (34-61 days) at 8 1/2 per cent; and £122m bank bills in hand 4 (62-91 days) at 8 1/2 per cent.

In the afternoon £105m bills

were purchased, when the authorities bought £30m bank bills in hand 2 at 9 per cent; £3m Treasury bills in hand 3 at 8 1/2 per cent; £43m bank bills in hand 3 at 8 1/2 per cent; £22m Treasury bills in hand 4 at 8 1/2 per cent; and £7m bank bills in hand 4 at 8 1/2 per cent.

Another \$45m was provided by way of late assistance. In Frankfurt call money was offered at 5.55 per cent compared with 5.50 per cent as between DM 3bn and DM 4bn continued to drain from the money market through expiring currency swaps.

LONDON MONEY RATES

Oct. 25	Sterling	Local	Local	Finance	Discount	Eligible	Prime
Overnight	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
7 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
14 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
21 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
28 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
35 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
42 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
49 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
56 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
63 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
70 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
77 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
84 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
91 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
98 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
105 days	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2

ECGD Fixed Rate Export Scheme IV. Average Rate for interest period September 7 to October 4 1983 (inclusive) 9.719 per cent.

Local authorities and finance houses seven days' notice, others seven days fixed. Long-term local authority mortgage rates nominally three years 10 1/2 per cent; four years 11 1/2 per cent; five years 12 1/2 per cent. Bank bill rates in table are buying rates for prime paper. Buying rates for four months' bank bills 9 1/2-9 3/4 per cent; four months' trade bills 9 1/2-9 3/4 per cent.

Approximate selling for one-month Treasury bills 9 per cent; two months 9 1/2 per cent; three months 9 3/4 per cent. Approximate selling rate for one-month bank bills 9 per cent; two months 9 1/2 per cent; three months 9 3/4 per cent. Prime bank bills one month 9 1/2 per cent; two months 9 3/4 per cent; three months 9 1/2 per cent. Finance House Base Rate (published by the Finance House Association): 10 per cent from October 1, 1983. London and Scottish Clearing Bank Rates for lending: 9 per cent. London Deposit Rates for same at seven days' notice: 9 1/2 per cent.

Treasury Bill: Average tender rates of discount 8.338 per cent. Certificate of Tax Deposit (Series B). Deposits of £100,000 and over held under one month on 9 1/2 per cent; two months 9 3/4 per cent; three months 9 1/2 per cent; six months 10 per cent. Under £100,000 9 1/2 per cent from October 6. Deposits held under Series 4-5 10 per cent. The rate for all deposits withdrawn for cash 8 per cent.

INTEREST RATES

EURO-CURRENCY INTEREST RATES (Market closing rates)

Market closing rates)						
Oct. 25	Short term	7 days	Month	Three months	Six months	One year
Sterling	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
U.S. Dollar	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Can. Dollar	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
D. Guilder	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
S. Franc	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Deutsche Mark	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Swiss Franc	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Belg. Lira	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Conv.	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Italian Lira	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Yen	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Krona	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
Sc. Kr. (Sigs.)	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2

FINANCIAL TIMES SURVEY

Selby Coal Field

This huge £1bn superpit, designed to feed 10m tonnes of coal a year to three power stations, will enable the NCB to produce coal with great efficiency and compete strongly with other forms of energy

By NICK GARNETT

THE FIRST production coal emerged this summer from the world's most modern mining scheme, which will develop eventually into the largest in Western Europe.

By the time the 110 square mile Selby field in rural North Yorkshire reaches peak production in 1987-88, just 4,000 men will be producing 10m tonnes of coal a year—a twelfth of the National Coal Board's total current output.

The Selby development, one drift mine and five satellite mines, will extract half of the 600m tonnes in the Barnsley Seam, at a cost of more than \$1bn at 1982 prices.

It is by far the most expensive investment ever undertaken by the Coal Board and has meant overcoming some of the most awkward geological conditions ever tackled by mining engineers in the UK.

The difficulties that these conditions pose was shown in July when, within four weeks of starting production at the Wistow mine, water under con-

siderable pressure burst into the A1 face at the rate of up to 2,500 gallons a minute. Either coal extraction had disturbed the plane of the fault that engineers knew was there or the speed of the face's advance had caused the rock to behave in an unpredictable manner.

That crisis halted production for more than six weeks. It demanded a huge effort under the direction of Mr Trevor Massey, deputy area director in direct charge of Selby, to restart work at the face and adapt it to cope with water which is still pouring into the seam.

The Selby scheme is a centrepiece in the Coal Board's struggle to get a grip on its massive cost problems. It is a battle that Mr Ian Macgregor, the board's new chairman, will now pursue more vigorously.

Selby reflects a number of themes:

● It represents a leap forward for Britain's coal industry and a shift in its development. Selby might be the precursor of a series of super pits as the board accelerates the shutdown of heavy loss-making capacity. With the Coal Board registering a loss last year of £475m.

before grants, the industry sees Selby as the first complete demonstration of its ability to produce coal at a very high rate of productivity and at low cost in its fight to compete with other energy sources. Selby's output per manshift is expected to be up to five times greater than the current national average.

● The Selby scheme is also a shop window for Britain's advanced technology in coal-field development and mining. From the task of sinking shafts and driving tunnels in difficult geological conditions to the extensive use of micro-computers and the most advanced mining and coal handling equipment, Selby is the most comprehensive collection of the best mine technology anywhere in the world.

Environmental considerations have also partly governed the decision of local authorities and the Coal Board to disperse miners' families across the area rather than concentrate them in obtrusive new housing estates.

● Finally, the National Union of Mineworkers has fully supported the project and recently shown a willingness to enter broader talks with the board on the industry's problems. However, Mr Arthur Scargill, the union's president, has indicated a wish to move the NUM towards a policy of halting output

The 160-acre Gascoigne Wood site, where the field's entire output will be brought to the surface. In the foreground are the two drive houses for the conveyors, containing 12,000 hp electric motors and, background, the 300m-long covered stockyard.

abroad based on its ability as a mine developer.

Selby has broken new ground in environmental protection, in part the result of growing public intolerance to unsightly devastation. The Coal Board, architects and consultants have responded to the challenge and many of the surface installations, including the shaft housings, blend as far as possible with the landscape.

Environmental considerations have also partly governed the decision of local authorities and the Coal Board to disperse miners' families across the area rather than concentrate them in obtrusive new housing estates.

● Finally, the National Union of Mineworkers has fully supported the project and recently shown a willingness to enter broader talks with the board on the industry's problems. However, Mr Arthur Scargill, the union's president, has indicated a wish to move the NUM towards a policy of halting output

at the most productive pits like Selby in any confrontation with management over the pace of closure of the least productive ones.

Selby, whose coal will go principally to the nearby Drax, Ferrybridge and Eggborough power stations, is part of the £4bn investment programme run by the board since 1974. The assumption of a required increase in capacity on which that programme was based has proved to be too optimistic however.

Total UK coal stocks now represent more than 40 per cent of the Coal Board's annual output of 118m tonnes. The Board's own stocks stand at 24m tonnes with 26m held by the Central Electricity Generating Board and manufacturing industries.

Mr Norman Siddall, the previous NCB chairman, said in the spring that he expected sales this year to drop by 4m tonnes, equivalent to the output of eight medium-sized pits. The Coal

Board has also been forced recently into a price structure compromise with the CEEB which increases cost pressures on the coal industry.

One response to all this has been an accelerating programme of pit closures with the Board on target to shut at least 16 pits this year. On the other side of the fence will be a push for new markets and projects such as Selby.

Mr Michael Eaton, director of the board's North Yorkshire Area, says that ultimately the industry will have to compete on its ability to produce coal at competitive low cost and that super pits such as Selby will become important factors in maintaining the industry's viability.

At Selby itself, coal output per shift for every man employed underground and on the surface is expected to be 12.7 tonnes as against about 2.3 tonnes for the UK national average. Production costs will run at about £18 a tonne with only 20 per cent of that deriving from labour costs as against 50 per cent in a typical pit. Net profits will be about £17 a tonne, more than three times better



CONTENTS

Sinking the shafts II
Mining techniques II
Coal handling III
Coal industry IV
Profile: Arthur Scargill IV
The energy balance V
Management VI
Computer controls VI
Care of environment VII
The architecture VII
Local impact VIII
Profile: Trevor Massey VIII
Profile: Derek Ellis VIII

than the best at the moment—at Kellingley, Yorkshire.

The existence of the Selby field was missed by coal explorers in the early part of this century; it was in the 1960s that the presence of a rich new coal-field was established. Surveys revealed five good seams containing 2,000m tonnes of coal, all at workable depths. Planning permission work the Barnsley Seam — with half its coal to be left underground to support the land surface — was obtained in 1976 and work began that year.

The depth of the Barnsley Seam varies from 250 metres in the west to 1,100 metres in the north-east of the field, which in geographic area is as big as the Isle of Wight. The seam's thickness varies from 2 to 3.3 metres.

Emergence

The five satellite mines — Wistow, Riccall, Whitmoor, Stillingfleet and North Selby — are vertical shaft pits down which men and materials will be moved. Each of these pits will work four coal faces. The coal itself will be extracted through the two drift tunnels emerging at the 150-acre Gascoigne Wood site by high-capacity conveyors 15 km long. From here trains will be loaded every half-hour day and night with 1,000 tonnes of coal for hauling to the power stations.

The Coal Board has developed its own computer software for controlling and monitoring a considerable number of operations. MINOS (mine operating system) has been in use at other mines, but Selby's is by far the biggest.

More than 70 contractors have been involved at Selby

and it has demanded extensive management skills to dovetail their activities. Companies involved in the project make up a distinguished roll call—in construction, names such as French Kier, McAlpine and Dowsett, and in the shaft sinking and tunnel driving Thyssen GB and Cementation Mining. Anderson Strathclyde and Cable Belts supplied the conveyor systems, Davy McKee, Parsons, Cleveland Bridge, GEC, and Hawker Siddeley among others providing equipment and skills.

A very large proportion of the miners who will work Selby are not local but coming from pits in other parts of Yorkshire which are closing or running down manpower. There are 1,200 NCB employees working on the field so far.

Some strains on labour relations have emerged as managers and NUM representatives flex their muscles and people get used to operating in a new environment. Development work earlier this year was temporarily hampered by overtime bans related to the setting up of the first production targets and the operation of procedures.

Such difficulties are probably inevitable and certainly happened at Kellingley in the 1960s. The "settling down" time for new mines is often five or six years, but Mr Eaton says: "I'm confident that this will be shorter at Selby."

For North Yorkshire, the project means a stimulus to the local economy, some new jobs—from canteen staff to mining trainees—and the long-term need to cater for the employment of miners' dependents. For the Coal Board it is an opportunity to show that coal can still be a competitive fuel.

"Coal is an efficient and economic solution to rising energy costs."
Jim Bisset, Director, The Whitcroft Group

"It's got to be coal if you wish to remain competitive in both national and international markets."

Herman Scopes, Director, ICI Petrochemicals and Plastics Division

"Coal-fired fluidised bed combustion provides a simple and cost saving solution to heavy fuel oil prices."

John Denton, Works Director, The Ketton Portland Cement Co. Ltd.

"Coal is uncomplicated, it is easy to burn."
Mike Gray, Group Energy Engineer, Dunlop Limited



OIL OR COAL?

TALK TO THE CONVERTED.

In any discussion on the choice of fuel there's one fact that emerges head and shoulders above the rest.

Coal is a considerably cheaper fuel than either oil or gas.

THE CHANGING FACE OF COAL

There have been some impressive advances in boiler technology, combustion techniques and methods of coal and ash handling.

It's now possible to operate in excess of 80% thermal efficiency. Equally surprising is that in modern installations coal and ash are seldom seen and rarely touched by hand.

COAL, OUR ENERGY LIFELINE

British Industry needs a modern, reliable and economical fuel to replace those that will dwindle in supply.

Coal is that energy lifeline. We are fortunate enough in Britain to have the resources to supply industry with coal for the next 300 years.

THE 25% GOVERNMENT GRANT SCHEME NOW EXTENDED TO 31st DECEMBER 1983

This scheme can provide up to 25% of the total project cost of making the change to coal. All companies in the private manufacturing and most service industries are eligible, providing that oil and/or gas has been used to meet at least 75% of the process steam or heating requirements over the previous year.

HELP FROM ALL QUARTERS

Further beneficial funding is now available through the EEC. This includes preferential loans at interest rates approximately 3% below the

broad commercial rate and a further 3% rebate on interest charges over the first five years of the loan. And the NCB is willing to enter into favourable medium and long-term supply arrangements with individual customers.

In addition there is a nationwide network of coal distributors who are strategically situated to give advice and provide an efficient delivery service to industry.

It is within the power of coal to make British Industry more efficient, more cost-effective, more competitive in world markets.

For further information on the grant and loan schemes please write to one of the addresses in the coupon on the right.

Funds are limited so an early application is advisable.

Department of Industry Charles House,
375 Kensington High Street, London W14 8QH
(or any regional DOI office).
Or National Coal Board, Technical Service,
Marketing Department, Hobart House, Grosvenor
Place, London SW1X 7AE.

Name _____
Title _____
Company _____
Address _____

FT26/10/83B

NCB
Coal. The fuel with a future.

SELBY COAL FIELD II

Huge task to drive tunnels and shafts

FORAKY LIMITED

One of the World's leading Exploration and Ground Freezing Organisations and responsible for all Ground Freezing operations at the Wistow, Riccall, North Selby, Stillingfleet and Whitemoor New Mines, also the Gascoigne Wood Drifts.

A comprehensive service of Exploration Drilling for Coal, Gas, Oil and other minerals to any depth worldwide. Over 40 Rigs available.

Foraky Limited

Colwick Industrial Estate, Nottingham, England. Telephone (0602) 611300. Telex 377743.

THE SPEED at which the shafts at Selby have been sunk and the success of contractors in overcoming some very difficult geological problems, have been one of the major achievements of the whole coalfield project. This is not to say there have been no big headaches—and one crisis—during an operation which employed 1,500 workers at its peak.

Though the technology involved has been long developed, the prospect of sinking 8,000 metres of shafts and eventually two nine-mile (15 Km) tunnels must have appeared daunting for an industry which has not done much shaft sinking for a long time.

So far, about 7,000 metres of shaft have been sunk with four of the five pairs of vertical shafts at the separate mines virtually finished. Some 6,600 metres of the North Drift tunnel have been completed and more than 6,500 metres of the South Drift. Eight of the ten insets which link shafts direct to the Barnsley Seam to handle equipment and ventilation have also been finished.

Dealing with the area's awkward geology has been the trickiest hurdle for the two main contractors, Thyssen UK and Cementation Mining. Much of the strata through which the Selby tunnels and shafts pass contain huge amounts of water, often under great pressure. There are also some basal sands which complicate matters

further by being almost "run-ning" sands with no solidity. Taking the shafts first, the technique adopted to overcome the problem of water was to literally freeze the ground, creating an ice wall to exclude the vast volumes of water in the high local water table. This freezing process has been handled on a scale and at a depth never attempted before.

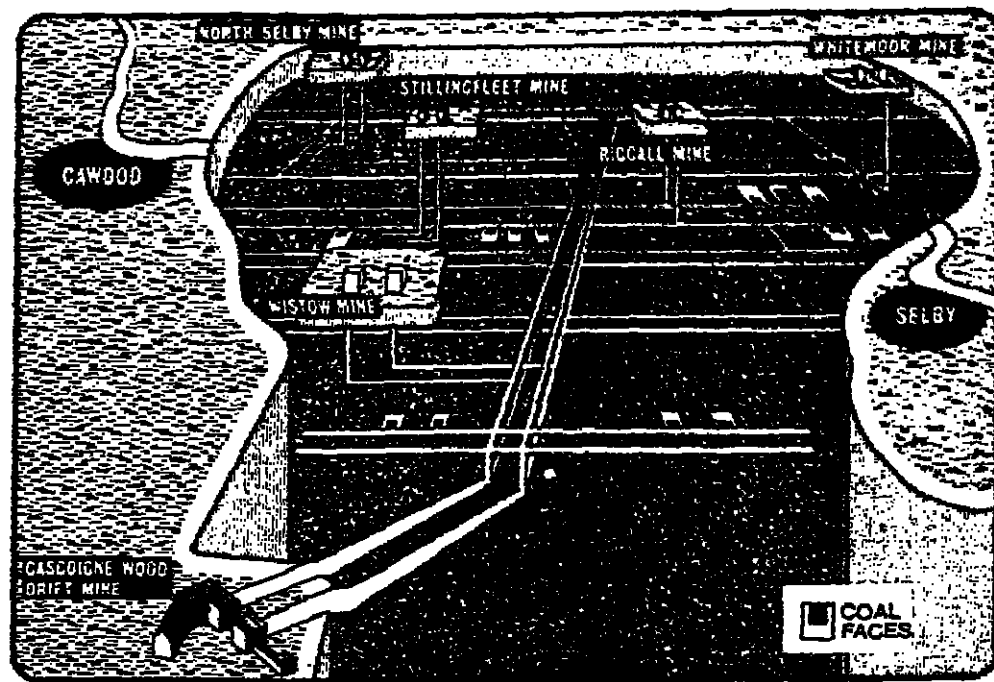
A collar of vertical boreholes are drilled around the perimeter of the 24-ft diameter shafts. Each hole is lined with steel tubing in which is a second, plastic tube.

A freezing plant on the surface then pumps brine cooled to between -20 deg. C and -30 deg. C down through the tubes, forming a solid plug of ice some 30 feet in diameter at the depth at which the water-bearing strata is located. The freezing process can take three months with a similar period for unfreezing.

As the shafts advance downwards they have been lined with concrete up to 1.3m thick, possibly the strongest hydrostatic lining used anywhere in the world.

Until the ground is frozen the shafts cannot be sunk, but once done there is a critical time period for stabilising the shaft with concrete before the unfreezing process begins.

This was missed at the Wistow mine creating the project's only real crisis before this



year's Wistow flooding. In June 1979, the Number One shaft at Wistow flooded while the ground was being thawed. The problems presented a major engineering challenge and were overcome by firing armour-piercing bullets into the freezing tubes. Some 4,000 tonnes of cement grout was then injected through the holes and into the strata until it was sufficiently hard for water to be pumped out of the shaft.

The incident delayed development at Wistow by six months.

Another big headache occurred at the North Selby mine, which has a sandstone bed within the coal measures themselves. Contractors were surprised to find water at 750 lbs per sq ft pressure. The mine—at a depth of 1,644 metres—was too deep for freezing but the sandstone is not strong enough to withstand the pressure needed for injecting cement.

The solution was a form of cover grouting with the insertion of a cylindrical shaft of reinforced concrete 16 ft thick a third of a mile below the surface. This contained 540 cu metres of concrete with banks of angled holes drilled through into the aquifer. The basal sands at Riccall also necessitated injection of cement.

The shaft have been sunk with explosives and some of the speed of advance has been very high. Thyssen believes it has set a European record by sinking 131.2m in a 31-day period at Whitemoor.

Meanwhile, work has been travelling apace on the drift tunnels which surface at Gascoigne Wood. These tunnels pass through water-bearing strata at an angle of 1 in 4 then level off at a depth of 190 metres to become underground spine roads—the principal arteries of the coalfield running like subterranean motorways

diagonally across the field for 15 kms. Along them 70 metres below the Barnsley Seam, the coal is being brought up by conveyor.

With water lying very close to the Plain of York's surface, the drift tunnels were begun in an open cut dewatered by 80 pumps. A Dosco Roadheader, an adapted coal tunnelling machine made by one of the clutch of Hawker Siddeley companies involved with Selby, was operated inside a tunnelling shield. This included equipment for setting in place the tunnel's circular iron lining. Hundreds of tons of cement grout were pumped behind the cast iron "tubing" to make the tunnels waterproof.

Further down, the problems of artesian water were tackled by a continuous series of two-stage lurches. Grouting from within the tunnel was carried out for a distance of 30 metres, the holes pumped with cement

Once this was set and the water flow under control, the tunnel was then advanced for 12 metres. Grouting on a further 30 metres was done before driving the next 12 metres of tunnel. This operation was repeated more than a dozen times in each of the two drifts.

Driving two tunnels of the length required for Selby has involved the kind of machinery which excites the imagination of children.

The North Drift is being driven by a bedded-up version of a conventional mine roadway heading machine. In this case it is a 280 hp Thyssen tunneller manufactured by Thyssen which has maintained an average advance of 44 m a week.

Operations were halted in the South Drift, however, to allow for the installation of a 25m full-face tunnelling machine—a Robbins Miner built by Robbins USA in Seattle.

This machine, which weighs 240 tonnes, was shipped to the UK in kit form. A huge underground chamber 40 metres long and 8.5 metres high was excavated to provide sufficient space for its erection. The machine, steered by a laser beam, delivers 600 hp at the circular cutterhead which has a diameter of 5.8 metres. The whole face of the machine revolves, grinding away at the rock face with 42 roller cutters.

The NCB is fond of describing the size of the Robbins and its trailing support equipment with a railway train. The materials train, system which services the heading operations is a locomotive-driven and has a 15 tonnes payload. The average advance for the Robbins is 90m a week which is a high-speed effort in tunnelling terms.

The quality of the drift tunnels has pleased the NCB. Mr Trevor Massey, the mining engineer in direct charge of the Selby development, says they are looking just one gallon of water a minute. "That's dry as far as we are concerned."

Boosted productivity the target

SELBY'S FIVE MINES, each with four faces, are expected overall to produce coal at about five times the current national productivity average for British mines. The target is an average 12.5 tons of coal for each miner every shift.

This high productivity can be achieved because of four factors. These are the thickness and quality of the Barnsley seam; the use of longwall retreat mining which is naturally productive and allows management to obtain much information about the coal before operations begin; utilisation of the most modern and automated coal-cutting shearer loaders with hydraulic supports; and innovations in material handling linked to the supporting drive network.

This latter point is a crucial element of Selby's operation because for every metre of coal face retreat close on three metres of in-seam tunnelling or drivages are needed. "The speed of retreat mining is governed by how good your support drives are and how you handle materials," says Mr Trevor Massey, the NCB's deputy area director.

The one worrying factor is that no one can guarantee that the flooding which paralysed the A1 face at Wistow for almost two months will not strike elsewhere in the field. The Barnsley Seam is in bands up to 11 ft thick and the coal is clean with very little if any waste rock mixed with it—ideal for longwall retreat mining.

This form of mining involves the driving of access roads to coal blocks which are up to nearly 2 km in width. The faces are opened at points of coal 1,000 metres long on each side of the main roadways. The coal cutter then makes its way backwards from the furthest extremity down the line of the access roads.

One advantage of this retreat mining is that the driving of a complete network of access roads prior to production provides mine managers with a clear perspective of the whole mining layout. It also removes the congestion with drive gangs at the end of coal faces associated with advance longwall mining.

Selby is heavily indebted to the coal board's advanced technology mining concept. This involves the drawing up of an integrated design for all the coalface equipment and its control gear.

The equipment on each face will cost about £4m. The basic machine is the shearer loader—the most modern answer to the pick and shovel. With this comes hydraulic roof supports—replacing the old pit props.

At the A1 coalface at the Wistow mine—the first face in the Selby coalfield—the shearer loader is an Anderson Strathclyde A/S 500 which holds a number of production records around the world. It is a double-ended drum shearer fitted with two 72-inch cutting drums which have hardened steel picks. The complete machine with drums revolving and biting into the coal is hauled along the length of the coalface on a track above the face conveyor.

The 400 hp shearer cuts the coal like a bacon slicer removing a 700-millimetre web of coal from the 2.5-metre thick face on each run. Each complete "strip" of the face will

yield 252 tonnes of coal every 25 minutes though the total cycle will take 77 minutes. Estimated average output per face is 2,000 tonnes a day with a productivity of 44 tonnes per manshift worked.

Operations on the face will be carried out by just seven men working in what is in effect a protective cocoon of steel tanks to major improvements in shield support. Dowty has supplied four 450-tonne heavy-duty shield supports with advanced remotely-operated control equipment.

Each powered support possesses a micro-processor control box with push buttons replacing conventional hydraulic valves for the various check operations. The operator pushing buttons on a specific check will be activating a check at a predetermined distance away so ensuring that he can remain at a safe distance from moving machinery.

Twenty to 30 tons of coal can drop off in front of a face in some mining operations but the coalface equipment at Selby is designed to remove the serious safety problems that can generate. The Coal Board says that, overall, setting

the supports is one of the mining engineers' biggest challenges.

The main task of the shearer loader's driver is to keep the cutting head in the coal, ensuring that it does not deviate into the rock strata above and below the seam.

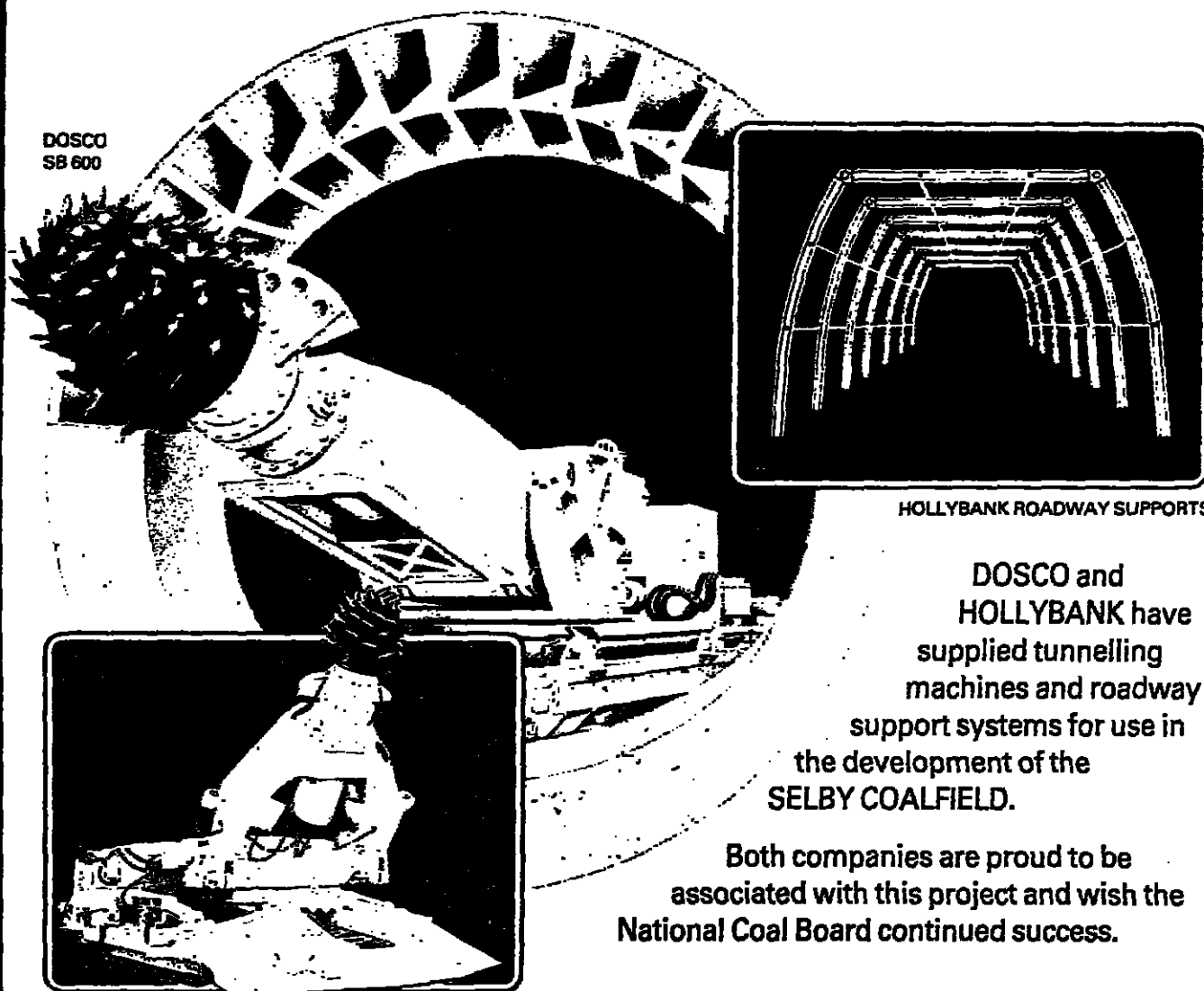
New technology developed by the NCB's mining research and development establishment and the GEC subsidiary Salford Electrical Instruments has provided the shearer with a micro-processor. This is a natural

gamma ray monitor sending out a beam which reflects back from the seam to give instructions for the cutting face.

In terms of the coal-cutting operation, the NCB at Selby has taken the latest proven equipment and will be assessing over the next few years just what it can do. The coalfield management though has introduced a new philosophy for designing and operating the supply lines to the face. This

CONTINUED ON NEXT PAGE

DOSCO & HOLLYBANK at SELBY



DOSCO and HOLLYBANK have supplied tunnelling machines and roadway support systems for use in the development of the SELBY COALFIELD.

Both companies are proud to be associated with this project and wish the National Coal Board continued success.

The equipment quoted in this advertisement has been purchased by the National Coal Board for use in United Kingdom mines or establishments.

HAWKER SIDDELEY

DOSCO OVERSEAS ENGINEERING LTD
HOLLYBANK ENGINEERING LTD

OLLERTON ROAD, TUXFORD, NEWARK, NOTTS NG22 0PQ TEL: Tuxford (0777) 870821

Hawker Siddeley Group supplies electrical and mechanical equipment with world-wide sales and service

First Couzens

Think first of Couzens when considering electrical contracting experience.

H.J. Couzens is one of the NCB's major electrical contractors in the N. Yorkshire coalfield.

Experts in mining and heavy industry, Couzens has been involved at all the Selby sites including, for example, the main distribution at Gascoigne Wood and the Wistow Downcast Winder.

Couzens has been a supplier of electrical contracting services and manpower to the NCB for

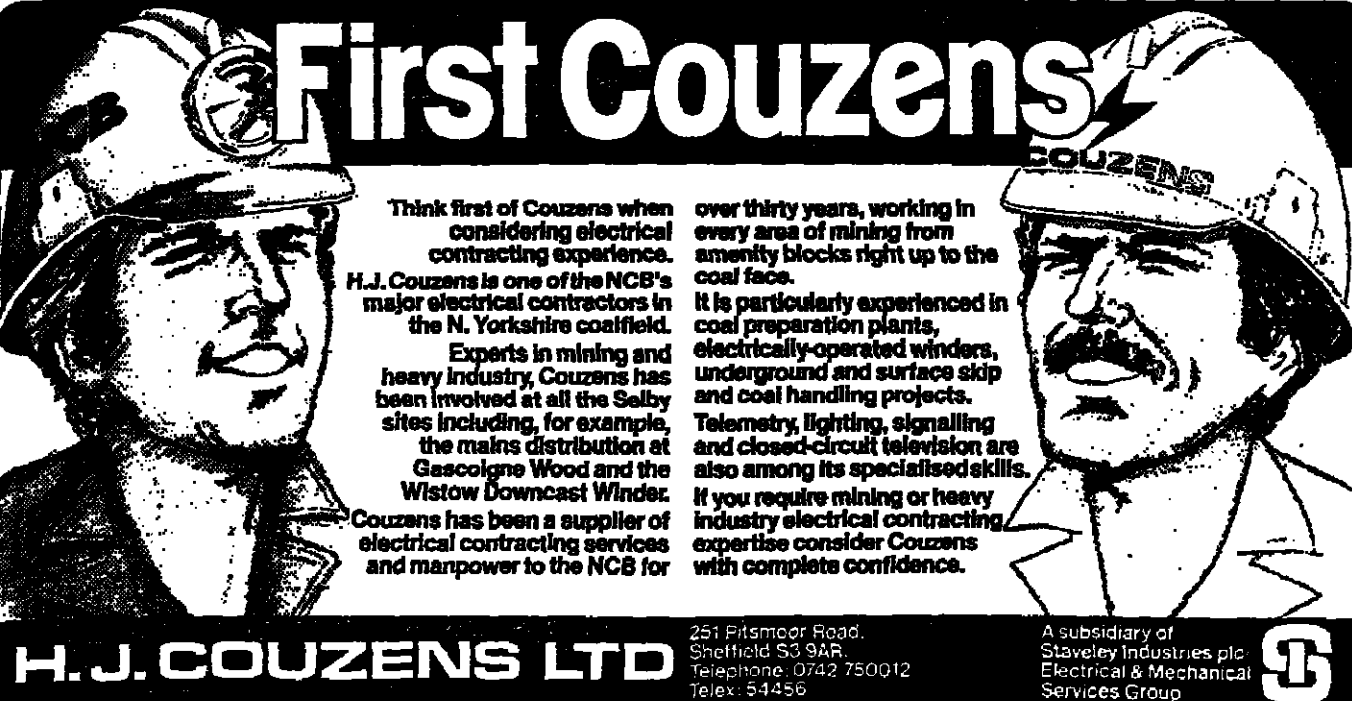
over thirty years, working in every area of mining from amenity blocks right up to the coal face.

It is particularly experienced in coal preparation plants, electrically-operated winders, underground and surface skip and coal handling projects.

Telemetry, lighting, signalling and closed-circuit television are also among its specialised skills. If you require mining or heavy industry electrical contracting expertise consider Couzens with complete confidence.

251 Pittsmead Road, Sheffield S3 9AR. Telephone: 0742 750012. Telex: 54456

A subsidiary of Staveley Industries plc Electrical & Mechanical Services Group



H.J. COUZENS LTD

DON'T BURN MONEY — BURN COAL!

YOU CAN CUT PRODUCTION COSTS BY USING BRITAIN'S CHEAPEST AND MOST ABUNDANT FUEL

The six Fluidised Bed Boilers Energy Equipment supplied to the Selby Coalfield provide heat for the Wistow and Riccall amenity blocks. They have provided over 10,000 hours of continuous unmanned operation at exceptionally low cost. These are only two of many successful installations.

Energy Equipment can supply a cost cutting, coal burning system for almost any application.

SO IF YOU SUFFER FROM HIGH ENERGY COSTS—

CONTACT THE:

E ENERGY EQUIPMENT CO., LTD.

A MEMBER OF THE PETROFINA GROUP OF COMPANIES
ENERGY HOUSE • HOCKLIFFE STREET • LEIGHTON BUZZARD • BEDS.
TEL: 0525 377600

SELBY COAL FIELD III

The five pits with their four faces will produce a total 2,000 tonnes a day

Highly-automated coal handling on a big scale

IT TAKES 90 minutes for a piece of coal to reach the power station after being cut from the first productive pit in the Selby coalfield where it has lain for the past 300m years.

The handling of this coal, between the pit faces and the British Rail wagons—is the central feature of the whole Selby project, underpinning the NCB's hope that it will be five times as productive as the mining industry's national average.

When fully developed toward the end of the 1980s, the Selby field, covering an area as big as the Isle of Wight, will be worked from five separate mines. The coal, which is so rich that it does not require washing, will be conveyed along two underground spine roads nine miles long and 70 yards apart. At their western end, they emerge through parallel drift tunnels into the 158-acre stocking and railway marshalling site at Gascoigne Wood.

Simple

In outline, the Selby concept of bringing all the coal to the surface through drift mines at a single site, was simple enough to have been worked out by Yorkshire Coal Board officials on the proverbial "back of an envelope." In practice, because of the scale of the project, it skirts the edges of new technology.

Many of the technical achievements can be viewed by tracing the route taken by the coal until it reaches the merry-go-round wagons which serve the power stations.

When the project is fully developed, this journey will take far longer than the 90 minutes quoted above. The present estimate applies to the first coal now being produced at Wistow, three miles from Gascoigne Wood.

It takes into account the 40-minute underground ride from the Wistow face to the railway loading bunker, about 15 minutes to load the first trains, and the 35-minute rail journey to Ferrybridge power station.

Currently, too, the coal arriving at Gascoigne Wood is going directly on to the trains. But when production builds up large quantities will be piled in the covered stockyard, which looms over the quiet rural site like the shed of a major main-line railway station.

Each of the five pits is to have four faces, from which coal is to be sheared and removed at the rate of 2,000 tonnes a day.

After being broken into eight-inch chunks, the coal will be conveyed through the mine tunnels to the main staple shaft bunkers. There are 11 of these situated at various points over the two spine roads.

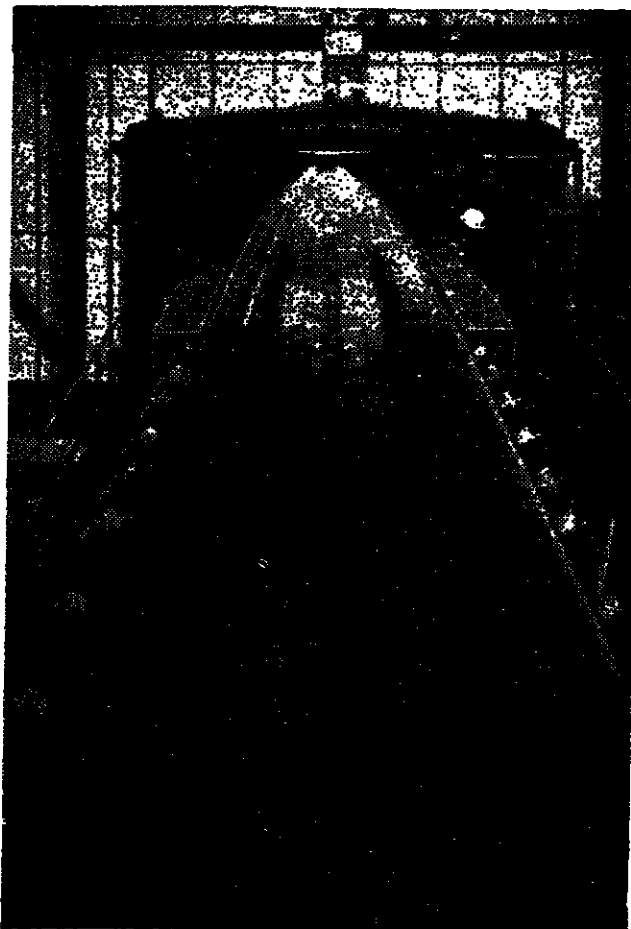
Here the coal will be crushed again, to a maximum diameter of two inches, and then discharged at the rate of 75 tonnes an hour on to the accelerating conveyors on the spine roads below.

This complex operation will be aided by a computerised control system, called MINOS, developed by the Coal Board in other parts of the industry. The hardware for the MINOS system at Selby is provided by Westinghouse and is designed to ensure maximum use of the staple bunkers, controlled feed of the coal, and efficient energy consumption.

Because of the experimental scale of the project, two different conveying systems are being used in the spine roads. Their respective performances will be carefully monitored and compared.

The belts, 18 miles in length, will each have to be strong enough to carry 2,000 tonnes of coal an hour and to support the coalfield's entire output should the other belt be stopped. They will move at 20 mph, three times faster than those used in most other mines.

The South Drift conveyor has been designed by BTR, Strathclyde, of Glasgow, in conjunction with its French associ-



One of the two conveyors running at Gascoigne Wood. The belts will move at 20 mph, three times faster than conveyors in most other mines

ate REL While Anderson is the main contractor for the belt, it will be driven directly by the propulsion machinery, like a car fan belt, and will rest on idlers reinforced by steel cords and Belting of Leyland, Lancs. It is made of flameproof PVC when loaded. It has a guaran-

teed working life of about five years.

Among its novel features is a method of attaching new lengths of belt by a vulcanising process. This permits the belt to be extended as the more easterly pits are brought into the Selby system. The additional sections, 418 metres long, come on reels weighing 43 tons.

The North drift conveyor will run on a different system patented by Cable Belt of Camberley, Surrey. Instead of the belt being directly driven by the winder motors, it will be propelled on twin steel cables. The belt will have moulded grips, or shoe forms, which sit on the cables. When loaded it sags to the required depth and has no need of idlers on which to "trough."

The first stage of the South Drift conveyor is nearly ready to operate but work on the North Drift's cable belt is in the early stages with only the foundations of its drive unit at Gascoigne Wood completed.

Casting

The drive units for both conveyors, the world's largest in electrical power terms, are being built by GEC Electrical Projects. The two motors on the Southern conveyor are rated at 6,200 kilowatts each. The conveyor's drive roller, which costs £250,000, weighs 120 tonnes and is made by the British Steel Corporation from a single casting.

Another illustration of the scale of the operation is that it is impossible to stop the conveyors dead: it takes 45 seconds to bring them to a halt during which 80 tonnes of coal "surge" to the surface.

When it emerges at Gascoigne Wood, where the conveyor motors are located, the coal is now two thirds of a mile higher than its lowest collection point underneath the coalfield. Its final ascent through the drifts is up a one in four slope.

Gascoigne Wood, covering 158 acres, is highly automated, with a staff of fewer than 30 men to handle the stocking and loading of the coalfield's 10m tonnes a year.

It will be able, in emergency, to hold 250,000 tonnes, although its main buffer stock will be held in the covered stockyard, with capacity for a day's output of 45,000 tonnes.

This huge structure, the biggest single-span industrial building in Europe, is open at one end. It is here that the coal will be stacked and blended by two-barrel reclamers, manned by a single operator working in an overhead cabin.

For the next year or two, the coal will go straight to the smaller strategic bunker, which regulates the flow to the two rapid loading hoppers for filling the merry-go-round rail wagons.

Between the strategic bunker and the hoppers, the coal is checked for quality by automatic sampling. The strategic bunker and the hoppers, like the stockyard, are all one-man operations.

The wagons will be loaded by "flood filling" techniques as they slowly roll past at between 0.5 and 1.15 miles per hour. Each station will be able to load 960 tonnes of coal into a 30-wagon train in about nine minutes and to handle a train every 17 minutes. Each train will also be automatically weighed before and after loading.

It is now only a short run of about half an hour to the three major coal-burning power stations at Ferrybridge, Eggborough and Drax, each of which has an annual burn of about 4.5m tonnes.

The electricity authorities hope that eventually all the Selby coal will be burnt at Drax, whose capacity is being raised from 2,000 to 4,000 Megawatts.

Maurice Samuelson

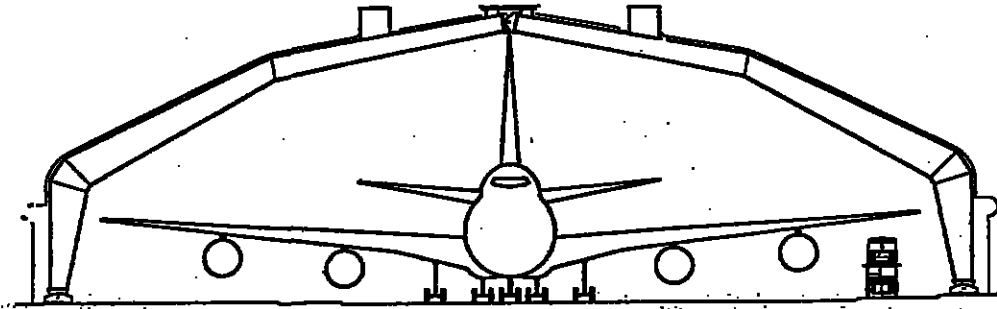


Diagram and view of the enormous covered stockyard at Gascoigne Wood, believed to be the largest, single-span industrial building in Europe—a Jumbo Jet and London bus are shown for comparison. Thirty people will handle stocking and loading of the coalfield's entire output.

Boosted productivity the target

CONTINUED FROM PREVIOUS PAGE

basically involves the concept of packaging materials, increasing the efficiency of material handling so that the men at the face know that they have enough supports and other equipment for at least seven metres of advance.

The solution to this—which grew out of the construction work—was the materials train system using big cars manufactured by GMT and Becorit to move materials and equipment from the surface stockyards.

Such trains have been used in the heading work, a 15 tonnes payload taking in more than 20 feet of equipment for heading. In the coal-getting operation the NCB believes it can run a pit with 15 of these big cars. On the surface the cars will be moved along rail tracks by multi-purpose tractors which can be used for other surface duties. The cars will be rolled into the cages for winding down the mine shafts at the bottom of which they will be marshalled in the pit bottom by battery-driven track locomotives using rubber-tyred wheels.

These mini-locomotives will make up in the sidings trains which will then be harnessed to more powerful diesels for transport in the drivages. Each mine will have its own underground railway system with the diesels using a combination of rack and adhesion traction. Traction is provided by normal track adhesion on level and slightly sloping track—tracks in-seam will incline at an average of 1 in 17 across the coalfields as the seam dips to the north-east.

For the steeper gradients in the geological fault areas, however, an adaptation of mountain railway engineering comes into play with the use of a toothed-drive wheel on the loco meshing with a rack between the rails.

At each site, one shaft will be equipped with balanced cages for the winding of men and mineworkers. The other shaft will have a large cage capable of dealing with the heavier equipment, up to 16 tonnes weight in a single wind.

Nick Garnett

FROM EXPLORATION TO PRODUCTION

- 1964 Exploratory boreholes south of Selby suggest lack of workable coal seams.
- 1964-67 Five deep boreholes sunk by NCB reveal good seams north and east of existing Yorkshire coalfield.
- June 1973 Further Selby borehole provings announced.
- August 1973 Seismic exploration of reserves announced.
- December 1973 Bill Forrest appointed Deputy Director (Mining) in the NCB's North Yorkshire Area with special responsibility for the Selby exploration.
- January 1974 Most northerly proving of the Barnsley Seam confirmed at Naburn—seam 1.50 metres (8ft 3ins) thick at a depth of 680 metres (2,230ft).
- August 1974 Planning application submitted to work Barnsley seam.
- April-June 1975 Planning inquiry.
- April 1976 Planning permission granted "in the national interest."
- October 1976 Project inaugurated at Wistow by Duchess of Kent.
- June 1977 Ground freezing begins for first of the Wistow shafts.
- August 1977 Shaft sinking begins at Wistow.
- March 1978 Drift drivages begin at Gascoigne Wood.
- June 1978 Shaft sinking begins at Riccall.
- September 1978 Shaft sinking begins at Stillingfleet.
- April 1979 Wistow shaft reaches Barnsley seam.
- July 1979 Shaft sinking begins at North Selby.
- February 1980 Shaft sinking begins at Whitmoor.
- October 1981 Bill Forrest retires; succeeded by Trevor Massey.
- May 1983 Wistow mine starts production.

French Kier builds at Selby

French Kier Construction can tackle any work connected with coal development anywhere.

French Kier Construction Limited has been active in Britain's coal industry for many years, both as a producer of open cast coal and a constructor of colliery and ancillary buildings. During the last twenty five years, work has been undertaken in every major coalfield in Britain.

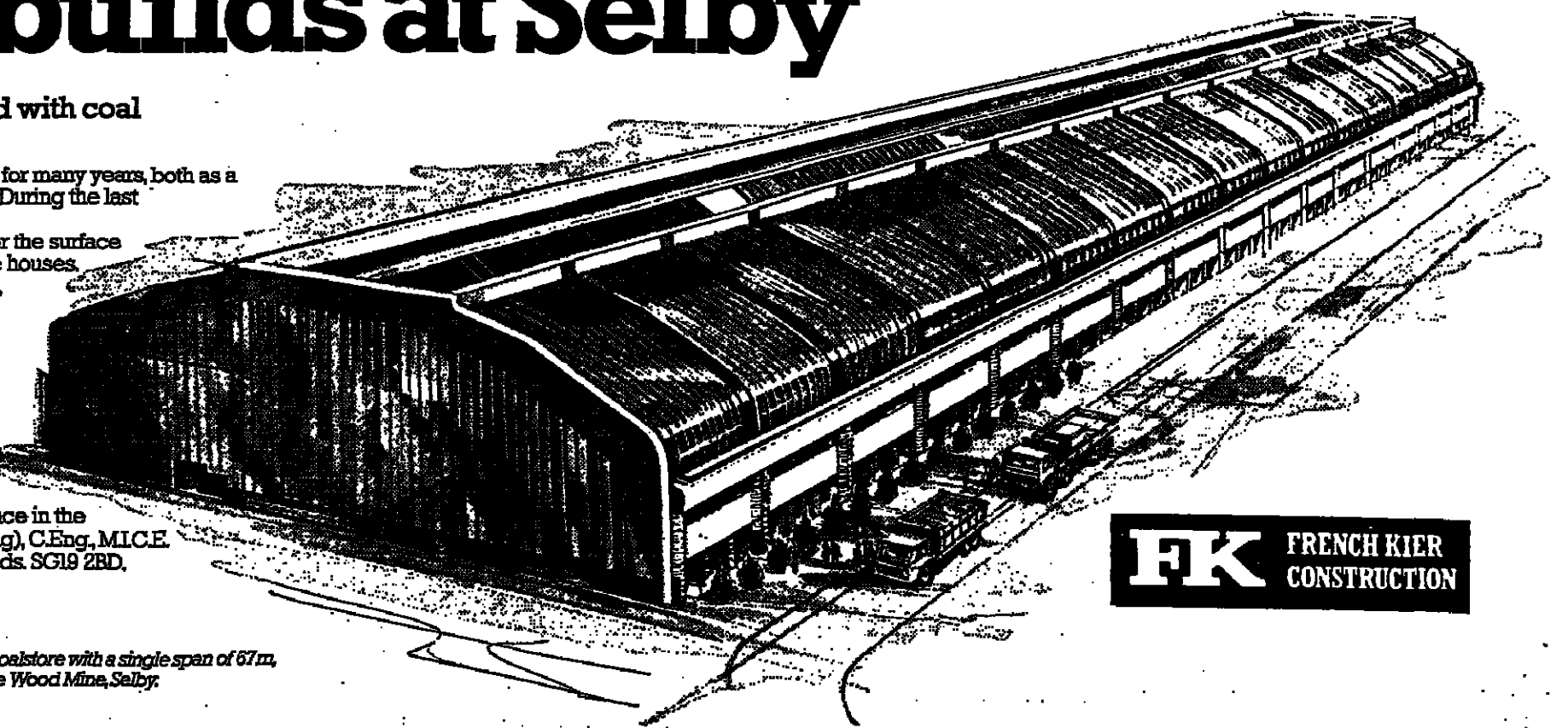
French Kier Construction Ltd. are the main civil engineering contractors for the surface works at the Gascoigne Wood Mine, Selby. They have constructed the two drive houses, concrete surge bunker, 43,000 tonne coalstore, transfer houses, 10km rail sidings, site roads and hardstandings, all to a value in excess of £30 million.

French Kier Construction Ltd. have produced more than 2 million tonnes of open cast coal for the National Coal Board. Their sites at Benbain and Keirabeath in Scotland will continue well into the 1980's and will produce a further 5 million tonnes of opencast coal.

French Kier Construction Ltd. have constructed two 40 cubic yard walking draglines, each weighing 2000 tonnes for the National Coal Board. Precision mechanical, electrical and welding work to a value of £1 million is required for each of these machines.

For further information on the French Kier Group's capability and experience in the production of coal and related activities, please contact C.A. Frettsome, BSc (Eng), CEng, MICE, Managing Director, French Kier Construction Limited, Tempersford Hall, Sandy, Beds. SG19 2BD. Telephone: Biggleswade (0767) 40111.

300m long, 22m high, 43,000 tonnes coalstore with a single span of 67m, part of the surface works at Gascoigne Wood Mine, Selby.



FK FRENCH KIER CONSTRUCTION

OCTAVIUS ATKINSON
STRUCTURAL & COLLIERY STEELWORK

The World over, structural steel from the Harrogate works of Octavius Atkinson & Sons Limited is helping vital projects take shape. From nuclear power stations and oil rig platforms, to sports arenas and industrial complexes — the list of projects and locations is endless.

With a pedigree in steel stretching back to 1873, no other company is better placed than Octavius Atkinson to handle the complex, demanding fabrication and erection schedules of today's civil engineering and construction programmes.

An unrivalled expertise, a reputation for the highest standards of quality and a record of achievement second to none make Octavius Atkinson the obvious choice!

For further information send for our full colour brochure

Octavius Atkinson & Sons Ltd
Structural Engineers
P.O. Box No. 16 - Starbeck - Harrogate
North Yorkshire - HG2 7NU
Telephone: 0423-885901

Name _____ Title _____ Company _____ Address _____ Phone _____

Matthew Hall AT SELBY

Mathew Hall Group companies have taken an important role during the construction of the Selby coalfield, being responsible for the lighting power and control cabling installations within the Selby complex, at Wistow, Whitmoor, Riccall and Stillingfleet mines and at the Gascoigne Wood Drift mine.

Qualter, Hall & Co., Ltd., the Group Company based in Barnsley and specialising in mineshaft technology, is the main contractor at Wistow and Whitmoor sites responsible for the design, supply, erection and commissioning of the Upcast and Downcast mineshaft mechanical handling equipment. It has also supplied minecar handling equipment for Riccall and Stillingfleet mines.

Matthew Hall Group of Companies

Matthew Hall House,
101-108 Tottenham Court Road,
London W1A 1BT.
Telephone: 01-636 3676

SELBY COAL FIELD IV

Different views on shape of the coal industry

THE ASSUMPTION by Mr Ian MacGregor of the post of chairman of the National Coal Board and his early and continued insistence on market realities, has sharply focused comment on the future of the coal industry.

Mr Arthur Scargill, the President of the National Union of Mineworkers, has described Mr MacGregor as a "butcher." Mr MacGregor has countered by calling himself a "plastic surgeon." Between butchery and cosmetics there lies a wide gulf—but both have as a prime objective the changing of shapes.

However, while the appointment has acted as a focus, the focus is a little misleading. First, the shape of the coal industry has constantly changed, because an extractive industry requires frequent burials and renewals to stay in business.

Second, the shape which Mr MacGregor will hack or mould out of the present configuration of pits and plants will be less his own than one whose parameters have been laid down by Sir Norman Siddall, the current and retiring chairman, by the harsh facts of the contemporary energy market and by the accidents of geology.

The energy market has been depressed for the past three years, but coal has been able to keep that reality at bay, first by enjoying a considerable price advantage over oil, but second and most important, by enjoying a considerable amount of government support, even a government as reputedly market-oriented as the present one.

That armlock enables the coal industry to persuade the Government to stop most imports of cheap coal coming into the country, and it also allows the Board to stockpile some 27m tonnes of its own and persuade the Central Electricity Generating Board to stock almost as much on its power station grounds. Thus the NCB has carried on producing, even though the power stations and the steel mills and the other users have not been burning.

Many have been the cries of "This cannot go on" but there are now signs that, indeed, it cannot. Stocks have reached spillover proportions after a mild winter and continued recession, the oil price is falling and the coal price is rising. The market pressure is palpable.

The Coal Board knows this better than anyone, and Sir Norman has told the truth to the miners and everyone else since he took over. A Daniel in the lion's den of Mr Scargill's first conference last July, Sir Norman told the assembled delegates that some 12m tonnes of capacity had to be closed down, and that had to go.

Mr Scargill, picking up this theme, used it as confirmation that the Board had a "hit list" of some 30 pits it wanted to close. He added fuel to that fire by producing documents which pointed to some confirmation of this by showing that the Board

PROFILE: ARTHUR SCARGILL

Tactical activist fighting the trend

THE OPENING of the Selby pit is a good time to make a brief review of the career of Mr Arthur Scargill, one of the most remarkable union leaders of his time. At 46, he heads the President of the National Union of Mineworkers, and is easily the most identifiable of all the members of the TUC general council, though he is a relatively recent recruit to the union. Scargill started his political career in the Young Communist League in the 1950s, at a time when the Communist Party's influence and strength was dwindling rapidly. He added fuel to that fire by producing documents which pointed to some confirmation of this by showing that the Board



Arthur Scargill: principles unchanged

TV screens—from which it has since rarely been absent for long that year, he became area compensation agent and in May 1972 was overwhelmingly elected Yorkshire area president, at the age of 36. He played a conspicuous part in the miners' strike of 1974—though by that time, the national level was better organised, and the political manoeuvring in London more important.

Throughout the remainder of the 1970s and early 1980s, Scargill sat in his Barnsley "castle," increasingly lionised by the media, providing an effective centre of opposition to the Right-wing leadership of Mr Joe—now Lord—Gormley. Though Gormley kept control of the executive with apparent ease, Scargill was building up support beneath the executive—support which was crucial to his winning the National presidency in 1982, with a huge 70 per cent of the vote.

CONTINUED ON NEXT PAGE



Market realities at Wistow's A1 face: Ian MacGregor talks to miners after the flooding this summer.

There is a good deal of coal in the peripheral areas, but its extraction is becoming increasingly costly. Price, not availability, is the main force for contraction.

Further, the steady and unspectacular march of automated equipment into British coal mines means both that the Board will need less human labour to extract the same amount of coal or more. Ominously for them, the NUM's executive members spent their last day in the London headquarters before the move to Sheffield discussing aerobically like MINOS and FIDO—new information systems for face work which will put miners behind consoles—and fewer of them.

A sign of the times is Mr Scargill's demand of the Board to sign a new technology agreement with the union: he wants shorter hours and earlier retirement for his members in return for working the new equipment. And while he insists jobs don't have to go, that part of the pitch—on evidence from other industries—doesn't appear too convincing.

The NUM executive recently considered a report by researchers at Bradford University, which forecast a mining labour force of 80-100,000 by the end of the century—a century in which they have numbered nearly ten times that

amount. This is what is staring the miners' leadership in the face, and while no union enjoys seeing itself wither away, the miners, with their particular history, their self-consciousness and the crucial role they have played in the political process, especially over the past decade, will take it especially hard. Mr Scargill is, in this sense, a fitting representative for this period of their history: his militancy, in distilled form, is all the substance of the conscious miner's will to see his era passing.

Yet what can he do? He has lost two nationwide ballots on industrial action in his first year, both by substantial margins. He has a membership which is increasingly dependent on high earnings because of new financial commitments, and he has an opponent—as he sees the NCB—which concedes a principal demand in advance: that miners should be particularly well paid.

Perhaps Mr MacGregor will not show the same straightforwardness he did at the British Steel Corporation (when he was dealing with a less militant union which had anyway just lost a major strike) and give Mr Scargill a chance to delay change. But it will only be a delay.

John Lloyd

Bulk Materials Handling, Stacking and Reclaiming

For the Gascoigne Wood drift site in the North Yorkshire Area of the N.C.B. Adamson Butterley were chosen to design, manufacture and install bulk materials handling systems capable of high speed movement of materials from the drift conveyors to stockpile, bunkering or rapid loading facility, in phases 1 & 2 of the surface works.

Dual-line conveyors, gantries and housings, together with transfer junction points, have been specially designed/developed to ensure a continuous flow of material and to accommodate the annual production output of 10m tonnes of coal. The entire system incorporates sophisticated computer controlled monitoring, sequencing, data processing, protection circuits, interlocks and alarms, plus some of the largest belts designed for coal movement in the UK.

In addition to the run of mine conveying system Adamson Butterley were also chosen to supply two stacking machines rated at 4,230 tonnes per hour stacking capacity, plus two barrel-type reclaimers of 2,000 tonnes per hour reclaiming rate. The latter machines are being designed in collaboration with Italimpianti.

These machines will operate within the covered stockyard at Gascoigne Wood and are designed to provide maximum homogenisation of the coal being produced at Selby.

The Selby scheme is just one of hundreds of projects carried out by Adamson Butterley for the NCB. Today's computer-controlled equipment is a result of 200 years development which make us one of the World's most experienced manufacturers of both material handling systems and the highly specialised machinery needed to operate these systems.

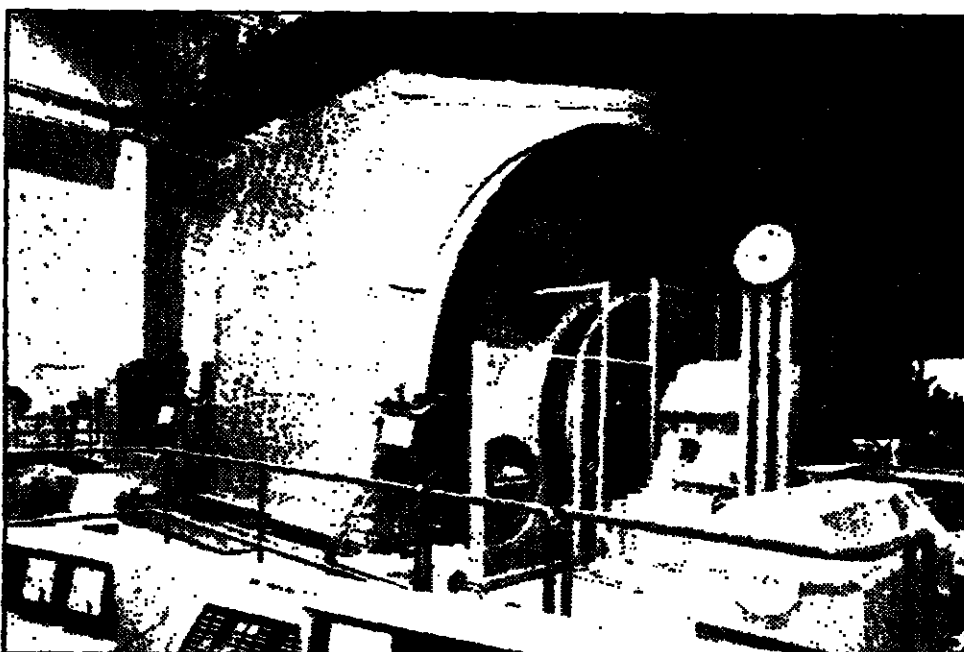
Adamson Butterley Engineering Limited



Adamson Butterley Engineering Limited
Ripley, Derby
Derbyshire
DB5 3BQ
Tel (0773) 46111
Telex 37508

The service quoted in this advertisement has been used by the National Coal Board in their United Kingdom mines or establishments.

Winders, Haulages & Cranes for Selby & North Yorkshire



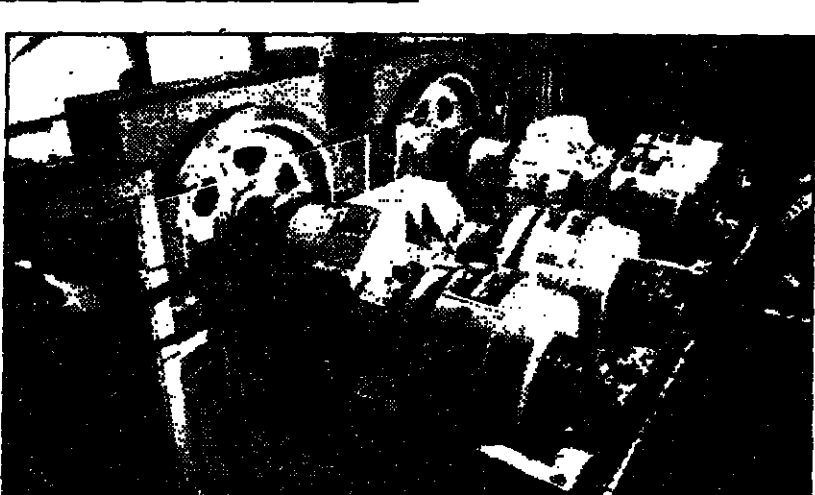
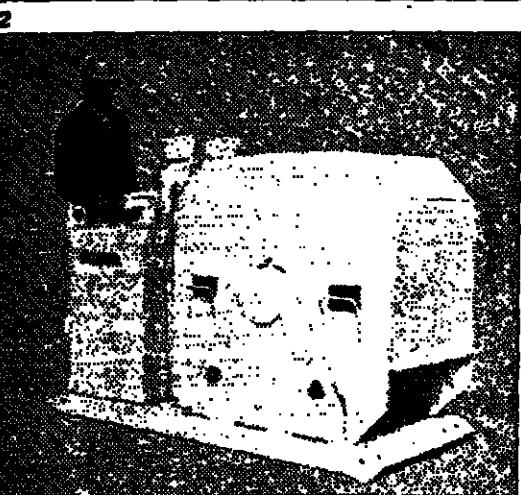
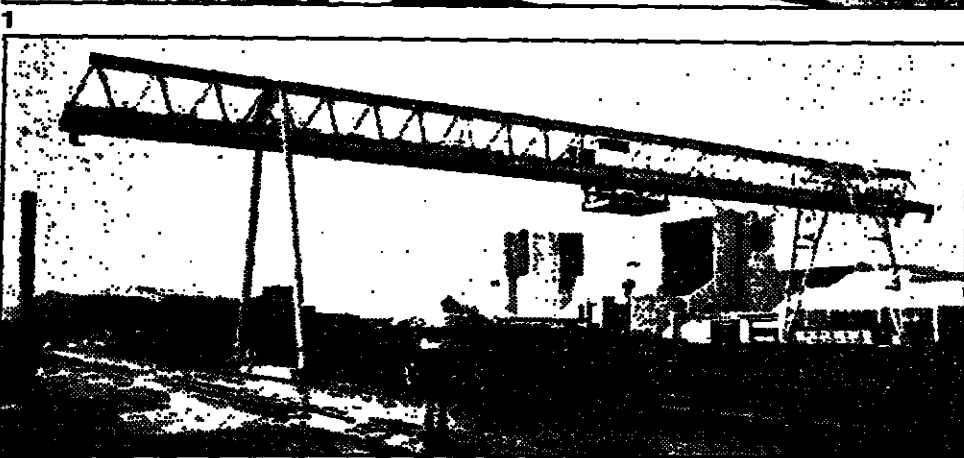
M B Wild were the choice for a large proportion of the winders, haulages and cranes at Selby. We have been supplying machinery to the mining industry worldwide since 1903. M B Wild equipment is used in Africa, Australia, Canada, South America, the Far East and the UK. Our reputation for high quality soundly engineered products is second to none. By keeping pace with modern developments, we build the most modern up to date equipment available.

1 One of the five large drum winders for Selby. (2000hp, 20ft diameter drum winder at NCB Riccall Mine).

2 One of three stockyard portal cranes for Selby. (2000hp, 100ft span, 30ft lifting height crane at NCB Wistow Mine).

3 22/30kW compact hydraulic haulage as supplied to Kellingley Colliery.

4 Two 2200hp friction winders at NCB Kellingley recently converted to disc brakes. These winders have far exceeded their original design capacity.



WILD BARNESLEY Engineering Group

Wharton Street, Nethells, Birmingham B7 5TS, England.
Telephone: 021-327 2041 Telex: 338434

Photographs reproduced by courtesy of NCB



Two-metre wide Fennerplast Conveyor Belt in operation at the Selby complex.

The only thing it fires is the imagination.

Fennerplast combines safety with strength. Which is why it will carry the output from five of the collieries at the NCB's giant Selby complex. Handling up to 4,800 tonnes of coal per hour at speeds of 3.8m/sec calls for a tremendously strong belting. Solid-woven Fennerplast is just that. And fire-resistant too. With its tough nitrile covers, this 2-metre wide belting packs the sort of industrial muscle that only 30 years of continuous development can provide. While giving the complete answer to the burning question of safety.

Fenner

J.H. Fenner & Co (Fennerplast) Ltd., Marfleet, Hull Tel: 0482 781234

Air conditioning, ventilation & mechanical services to the surface building at the Gascoigne Wood site for the NCB.

For all aspects of the design, installation and commissioning of air-conditioning, mechanical, electrical and process services throughout the UK.

SES Shepherd Engineering Services Limited
Head Office: Mill Mount Lodge, Mill Mount, York YO2 2BN
Tel: 0804 25151 Telex: 57477
The Technology behind the Technology

British Ropes

PULLING ITS WEIGHT IN THE SELBY COALFIELD

as suppliers to the National Coal Board of SHAFR ROPES for Wistow and Sillingfleet mines and SINKING ROPES for all mines and to Cable Belt Ltd. or CONVEYOR ROPES.

British Ropes is one of the world's major suppliers of every type of rope for all mining and quarry applications.

BRITISH ROPES
Mining & Bridges Dept., Carl Hill, Doncaster, South Yorkshire.
Tel: (0302) 4010 Telex: 547981

SELBY COAL FIELD V

Falling demand is at the heart of the industry's problems

Intense rivalry with oil to meet energy needs

THE UK COAL industry is being both pushed and pulled by its mixed fortunes.

At first glance coal suppliers—helped by improved mining productivity—would seem to be doing well, regaining their dominant market share which they enjoyed until 1970 when oil became the country's leading primary fuel.

In 1981 the UK used 6.7 per cent more coal than oil on an energy-equivalent basis. Last year the two fuels were running neck and neck, with each supplying just over one third of the country's energy needs. In the first seven months of this year coal usage was again outstripping oil consumption by 5.5 per cent.

According to recent energy projections by the National Coal Board, the coal industry will maintain this lead. The Board reckons that during the present 1983-84 financial year demand for coal will account for about 110m-111m tonnes of the country's primary energy consumption of 308m-311m tonnes. Demand for oil, on the other hand, is expected to be between the equivalent of 106m and 107m tonnes of coal.

But the coal industry can take very little comfort from its apparent improvement in the fuel league table. For it has occurred largely as a result of the dramatic drop in oil demand—35 per cent since 1973—which in turn has risen through conservation measures, economic recession and fuel users' flight from oil (often to natural gas).

Coal producers have also been hit by falling demand although, from their point of view, the rot started to set in long before the 1973 energy crisis. UK coal demand hit a peak in 1956 when consumption totalled 217m tonnes. Since then consumption has been on the decline, to a



Miners leaving a Yorkshire colliery at the end of the day shift. Falling demand and investment in new projects like Selby threaten older mines

little under 200m tonnes in the early 1960s, to 157m tonnes in 1970 and 123m tonnes in 1980.

This long-established decline in demand is at the heart of so many of the industry's problems. For not only has the Coal Board had to invest in new, more cost-effective mines like Selby but it has had to shut down a great deal of its old colliery capacity which is clearly no longer needed. Considerable pruning has already taken place over the

past dozen years. For instance, between March 1971 and spring this year manpower fell from 284,400 to 202,700, the number of pits was cut from 292 to 191 and the number of producing faces reduced from 839 to 578.

But there is still a long way to go, as Mr Norman Siddall, the recently retired chairman of the Coal Board, pointed out last month. He said that during the current financial year the run-down in manpower, mainly through natural wastage and voluntary redundancies, was likely to exceed last year's figure of 10,174. Seven collieries were closed in 1982-83 and more than twice as many could be shut in the present 12 months.

Mr Siddall's successor, Mr Ian MacGregor, formerly head of British Steel Corporation, has been urged by the Government to return the industry to profit as soon as possible. (Last year the Board made a loss before grants of more than \$473m.) That will mean further pit closures. At least 60 of the Board's 191 pits are expected to reach the end of their workable reserves by 1990-91.

Yet, on the more positive front, the Board is continuing to invest heavily in modern mining capacity while the miners repeatedly register new productivity records. In the past nine years the Board has invested some \$2bn under the Plan for Coal development proposals drawn up in 1974 by the industry, government and trade unions. That plan put the emphasis on the generation of new tonnage and replacement capacity by the mid-1980s.

Given the uncertain future for coal sales at home and abroad, that plan has been pushed to one side. Its target of an output running at 170m tonnes a year by the end of the century is now seen by industry leaders as fancifully optimistic. But the main thrust of the plan, the movement towards a more modern, profitable industry, continues.

Significantly, the Government has recently cleared the way for the controversial \$400m development of a major mining project near the Vale of Belvoir, Leicestershire. This mine, to employ between 1,100 and 1,500 men, formed part of the NCB's proposal to open new pits in and around the Vale, one of the few unspoiled parts of the East Midlands.

The overall project was rejected by Mr Michael Heseltine, a former environment secretary, but then his successor, Mr Tom King, said he would not stop the Board developing one of the pits, Asfordby, near Melton Mowbray.

"We are jubilant," said Mr Jack Jones, Leicestershire area secretary of the National Union of Mineworkers. "We have moved from working a contract-

ing coal field to an expanding one." In the past year he has seen employment in the ageing, and largely depleted Leicestershire coalfield fall by over 1,000 to less than 3,000.

Investment in new mines and mining equipment is a major factor behind improving productivity. Another contributor has been the successful introduction of an area bonus scheme to supplement miners' pay. The complexity of the workforce is also changing: the average age of miners is dropping rapidly and an increasing proportion of the men are buying their own homes.

As a result of all this 11 output records were broken in the 1982-83 financial year. Output per manshift averaged 10.10 tonnes, a 5.8 per cent increase over the previous year. In March the output was up to 11.2 tonnes. Attendance was better than in any year since nationalisation with the absence percentage throughout the year at 10.4, a full percentage point lower than in 1981-82.

And yet in spite of these encouraging trends the Board remains in deep financial trouble. It could be at least five years before it is back in the black. The industry's overall performance is still being dragged down by a long tail of uneconomic pits with roughly 12 per cent of its output losing \$250m annually.

In addition the economic recession has depressed the demand for coal much harder than the Board had forecast, with the result that over 53m tonnes of coal—almost half a year's UK consumption—is now stockpiled.

With this in mind Mr MacGregor, insists that "my main job is to find customers for the coal." If he is successful he may break down the barrier that was first set by Mr Arthur Scargill, NUM president, who said, at least initially, that he saw Mr MacGregor more as a "butcher" — out to hack at jobs and loss-making pits—rather than as a salesman.

Ray Dafter

Fighting the trend

CONTINUED FROM PREVIOUS PAGE

He took over in uncompromising style, promising a complete break with the past and encouraging a series of militant resolutions at his first conference in Inverness last June. The all-important wages resolution committed the union to seek wage rises between 26 and 31 per cent—a massive level at a time of falling energy demand (and falling inflation).

Relations with the Board soon drifted into virtual limbo, with joint meetings ending in a highly publicised walk-out in one case, or in acrimony as Scargill demanded a "hit list" of pits which the Board claimed it did not have. The wages offer—of about 7 per cent—was naturally rejected, but a ballot vote to fight for it and against closures was heavily lost (51-39 per cent).

A second ballot earlier this year, on the closure issue alone (into which Scargill was forced by a split in a closing Welsh colliery) produced exactly the same result, and has led to a radical change in attitude, though not in rhetoric or long-term position. This year's wages claim has named no figure and the NCB's first and "final" offer of 5.3 per cent is unlikely to meet a militant challenge.

Scargill himself has not changed, and the low profile is a tactical ploy. He and his union have withdrawn to Sheffield, where he feels more at ease; he will certainly aim to prove once more that the miners are industrial and political giants. The trends, however, are against him, and he must do much by will alone.

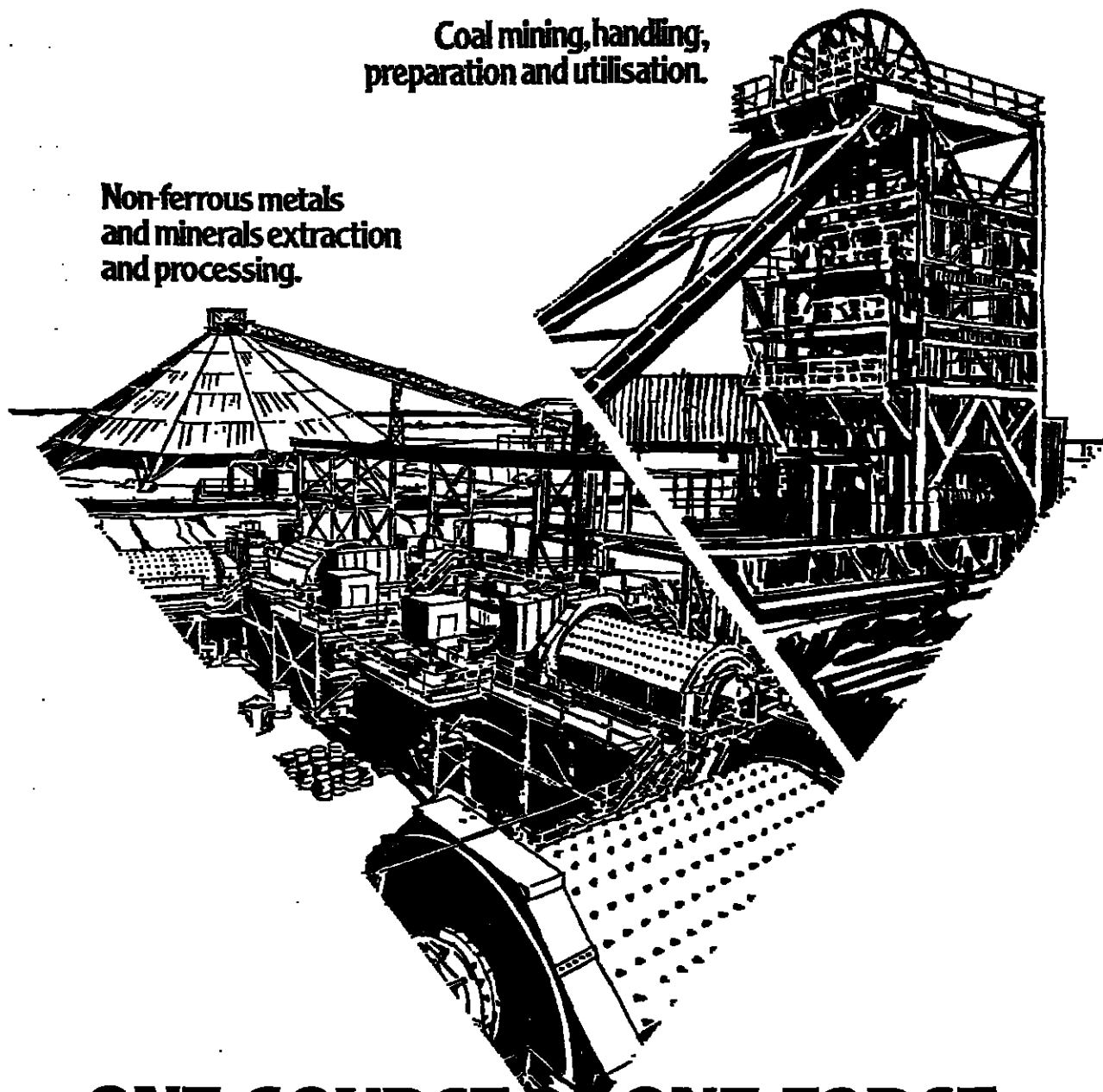
Though a flamboyant orator, and much pilloried for his Barbican flat and Daimler car, Scargill is personally rather austere. He works or continually, rarely appears to relax and is not a man in the miners' tradition of hard drinking and heavy smoking.

Sharp, sarcastic and guarded in public, he can be both hilariously funny (as a mimic) and charming in private. His permanent home, where his wife and daughter live, is near Barnsley and is a medium-sized detached house. He keeps his private life rigorously private, never projecting his family into the public gaze as did his predecessor, Lord Gortale, with his wife Nellie.

John Lloyd

Coal mining, handling, preparation and utilisation.

Non-ferrous metals and minerals extraction and processing.



ONE SOURCE. ONE FORCE. Davy McKee

Davy McKee is currently executing contracts to design, supply, install and commission the headgears, cage winding and mine car handling systems at two of the Selby mine sites, Riccall and Sillingfleet. Davy McKee provides a total capability from initial concept to complete complex. Services include research and development, feasibility studies, design, engineering, project management, procurement, construction and plant operation.



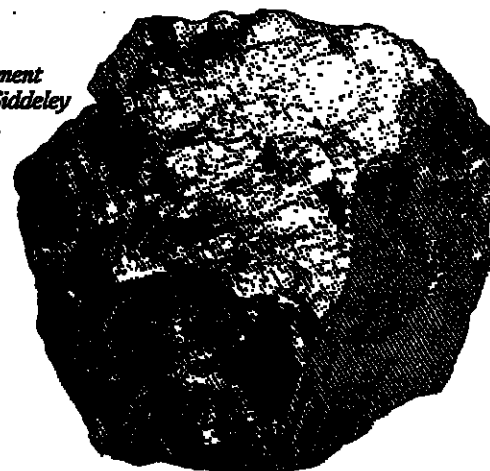
A Davy Corporation Company.

Davy McKee (Stockton) Ltd.

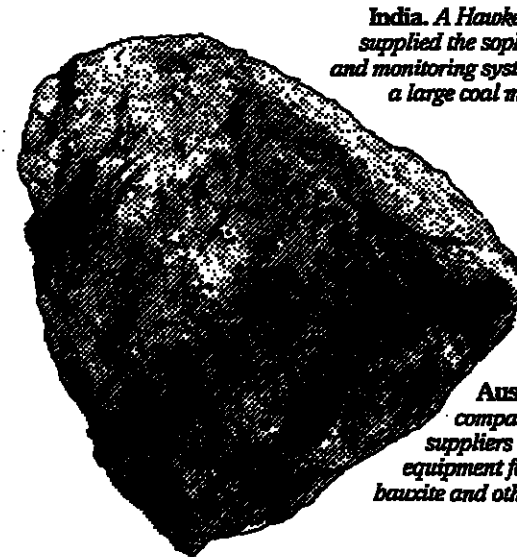
Ashmore House, Stockton-on-Tees TS18 3RE. Tel: 0642 602221. Telex: 587151.

Our products provide the power to let yours see daylight.

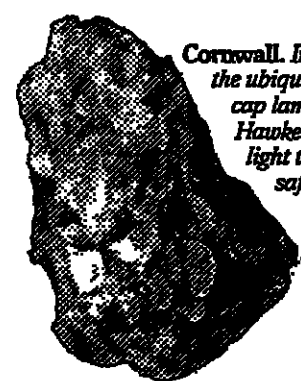
Europe. Cutting equipment supplied by a Hawker Siddeley company to a European iron ore mine, is also used extensively worldwide for quarrying, tunnelling and roadheading.



India. A Hawker Siddeley company supplied the sophisticated control and monitoring system for a large coal mine.



Australia. Here a Hawker Siddeley company is one of the largest suppliers of automatic bulk handling equipment for transporting and stacking bauxite and other aluminium ores.



Corwall. In the Cornish tin mines the ubiquitous Hawker Siddeley cap lamps made by Hawker Siddeley companies light the way with safety.

Tanzania. Generators providing baseload power for this diamond mine were supplied by a Hawker Siddeley company.

Papua New Guinea. Transformers manufactured by a Hawker Siddeley company supply power to all parts of a copper mine.

All round the world, beneath the surface — and above it — Hawker Siddeley equipment is constantly at work in underground and opencast mining.

We manufacture a comprehensive range of transformers, switchgear and fusegear, motors, control gear, batteries, lamps, mains and standby generating equipment and roadheading and mining machines.

Hawker Siddeley control and monitoring systems and instrumentation are in use in some of the world's most sophisticated and technologically advanced opencast and underground mines.

Our transport systems include bulk handling equipment for underground and surface use as well as machinery for coal/ore preparation and storage.

The companies that manufacture and supply this equipment are names that are renowned in the mining industry: names like Brush, Oldham, Westinghouse and Dosco.

Send for the brochure giving the full story and details of all the equipment and services available to the Public Relations Department at the address below.

HAWKER SIDDELEY GROUP
PUBLIC LIMITED COMPANY

32 Duke Street, St. James's, London SW1Y 6DG. Telephone: 01-930 6177. Telex: 919011.

Hawker Siddeley Group supplies electrical and mechanical equipment with worldwide sales and service.

UK PRIMARY ENERGY DEMAND (million tonnes of coal equivalent)						
	1972	1975	1980	1981-82	*1982-83	*1983-84
Coal	132	122	123	117	110	110-111
Oil	164	126	121	113	106	106-107
Natural gas	44	55	70	73	71	71-72
Nuclear	10	11	12	14	17	19
Hydro	2	2	2	2	2	2
Total	353	326	329	319	306	306-311

* Estimate. Source: National Coal Board

NCB'S SALES AND PRODUCTION (m. tonnes)			
	1981-82	1982-83	1983-84*
SALES			
Power stations	82.0	86.2	80.9
Coke ovens	8.4	7.6	7.2
Industry	8.7	8.3	8.2
Domestic	8.0	7.3	7.2
Others	2.7	2.6	2.6
Exports	9.4	7.1	7.5
Total	126.2	126.6	116.3
PRODUCTION			
Deep mines	108.9	104.7	106.2
Opencast	14.3	14.7	14.0
Licensed mines	2.1	1.3	1.3
Total	125.3	119.7	121.5

* Estimate.

For the full story of Cementation Mining's involvement in the development of Selby Coalfield please turn to the Letters Page

Cementation Mining Ltd. Bentley House, P.O. Box 22, Doncaster, South Yorkshire, England.



TREETON COLLIERY (Courtesy of the NCB)

SKILLED, EXPERIENCED MINING ENGINEERS
Backed by the most modern mechanisation techniques

ANYTHING UNDERGROUND ANYWHERE
In Shaft Sinking, Tunnel Drilling, Drifting and Developments

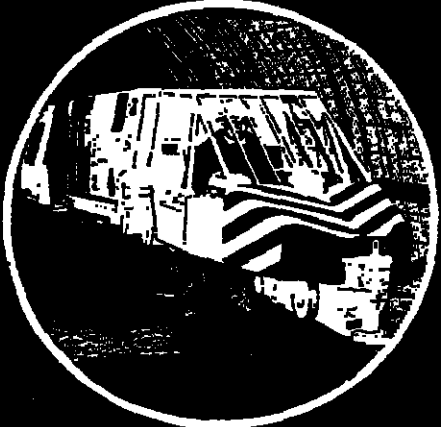
CONSULTANCY AND DESIGN FOR MINE DEVELOPMENTS
Underground and Surface Drilling and Grouting Specialists

AMCO Amalgamated Construction Co. Ltd.

MINING AND CIVIL ENGINEERING CONTRACTORS
P.O. Box 1, Whaley Road, Barnsley, South Yorkshire S75 1HG
Telephone 0226-43415 (5 lines) Telex: 547401



The UNDERGROUND movement



Becorit 100 h.p. Roadrunner and Monorail Locomotive systems are well established in British Mines and are proved to be safe, efficient and economic. As well as Roadrunner and Monorail, Becorit offer a comprehensive range of conventional rail equipment. From this range Becorit are supplying to the Selby Coalfield Special Material Cars and 150 h.p. Rock Adhesion Locomotives. Becorit also provide a full Consultancy Service for Man and Material Transport Systems.

Becorit (G.B.) Limited
Hallam Fields Road, Ilkeston, Derbyshire DE7 4BS, England.
Telephone Ilkeston (0602) 302603.
Telex 373226.

Profit from Dowty In-depth Technology

The largest British manufacturer of longwall equipment is pleased to be supplying roof supports and conveyors for Selby. Congratulations and best wishes to all concerned with this great endeavour.

DOWTY

Dowty Mining Equipment Limited, Ashchurch, Glos.
Dowty Meco Limited, Worcester.
Dowty Huddell Limited, Huddell, Notts.
Companies Worldwide.

AT SELBY... A TRAIN LOAD OF COAL EVERY 20 MINUTES WILL BE DELIVERED BY THE MOST POWERFUL STEEL CORD BELT CONVEYOR IN THE WORLD... DESIGNED AND MANUFACTURED BY...

Anderson Strathclyde PLC

Anderson House, 47 Broad Street, Glasgow G4 2DN, Scotland.
Telephone: 041-554 1800. Telex 778109.



Henry Boot

In our long association with the National Coal Board, Henry Boot has successfully undertaken a very wide range of projects with many specialised operations demanding tight programmes and complex planning.

Our considerable knowledge and experience in this field has led to a close understanding of exacting NCB requirements and an efficient working relationship.

We are proud of our achievements for the National Coal Board and look forward to continuing our association.

Henry Boot Civil Engineering Limited

Dronfield, Sheffield, S18 6XN. Tel: 0246 410111 Telex: 547079
and Manchester, Birmingham, Hitchin, London

SELBY COAL FIELD VI

Difficulties have been overcome by close teamwork

Management successes based on partnership

EVERY CHRISTMAS for the past seven years, Mr Michael Eaton, North Yorkshire area director of the National Coal Board, has been bringing the house down with his after-dinner speeches in a Yorkshire country hotel.

The popularity of the dinner is a testimony not only to Mr Eaton's eloquence but to the success of the Selby project as a partnership between the Coal Board and its outside consultants and contractors.

The dinners are arranged by W. S. Atkins and Partners, consulting engineers for all the surface aspects of the Selby project. The guests include top managers from the NCB, architects, quantity surveyors and a host of engineers.

Some of the contractors represented at the dinner usually see each other as bitter competitors. But according to one of the recent participants, their differences have been submerged by their awareness of the scale of the project, the problems it has presented, and the credit it is bringing to British industry.

W. S. Atkins says it was brought in as consultants because Selby was the first virgin territory to be exploited by the National Coal Board and because of the complex environmental difficulties which had to be surmounted to win planning permission.

The company is no stranger to very big projects. Among those with which it has been involved are British Steel's Redcar works; the Drax power station and its extension; the M11 motorway and parts of the M25.

Its biggest scheme so far, costing three times as much as the Selby coalfield, is the SNS steelworks in Algeria.

Atkins' involvement at an early stage in Selby is one reason given by Mr Ken Drobish, its director of UK projects, for the creation of what is effectively a joint integrated team consisting of men from Atkins and the NCB. At the latest count, 56 men are based in the Selby area, headed by Mr Peter Hammond, project director.

There is a further reason for the fact that the team spirit is still strong even though there are now far more contractors than in the early years. This is because, as Mr Michael Eaton put it recently: "As the project gains momentum there is more good news."

He is referring mainly to the beginning of commercial coal production which, after some delays, is starting to ease the whole project's cash flow. "On

some parts we are a year behind and in some parts we are two years behind. But for the past three years we have been catching up and may beat that final deadline for full production," he said.

The longest delay has been at Selby where the men sinking the shaft struck very strong water pressure 500 feet down. To pay for this delay, additional coal is to be extracted from the four other mines although this cannot be done for very long.

The responsibility for solving all these problems and ensuring that physical and financial targets are met falls on Mr Trevor Massey, Mr Eaton's deputy, who took charge in October 1981 following the retirement of Mr Bill Forrest, the project's first director.

Meetings

One of the few men who can see the state of the entire project at any one time, Mr Massey is assisted by a special team of NCB engineers working alongside the main contractors and who provides a lot of technical input. Above them is a representative of the board's technical staff.

Elaborating on the management structure, in the March issue of the magazine "Achievement," Mr Massey said that because of the many elements of the project, involving multi-disciplinary electrical, mechanical and civil engineering work, it was found very effective to have weekly meetings with all the contractors.

In addition to being progress meetings they were also "com-

mitment meetings to get the end result right." This often involved one contractor allowing another on to the same site.

Mr Massey also brought about changes in the organisational structure to take account of the beginning of coal production. "Previously the project had been run in isolation from the NCB's area organisation because of the absence of a mining element. When I arrived that element had started so we have now become far more integrated into the area in preparation for the many services that will be required," he said.

The close integration of the Atkins team is due largely to the fact that it was brought in sufficiently early to influence the project.

Mr Fred Ronlston, Atkins' sub-project manager at the Gascoigne Wood drift site, is among those brought in after the 1974 public inquiry. At that time, the Atkins engineers were given their brief for the handling of the coal on the surface by Mr Forrest, who had set up the NCB project management team at Allerton Bywater, the North Yorkshire area headquarters.

Atkins' early work for the Gascoigne Wood site centred on the phasing of the development contracts and then breaking them down into "packages" which ensured that too many contractors were not working at any one time.

The main packages involved opening up the site roads; civil engineering for the run-of-mine facilities, the two drift conveyor drive houses, the stockyard, and the foundations. The contract for Gascoigne Wood's



Trevor Massey, weekly meetings.

amenity block, stores and electricity sub-station were dealt with separately at an early stage.

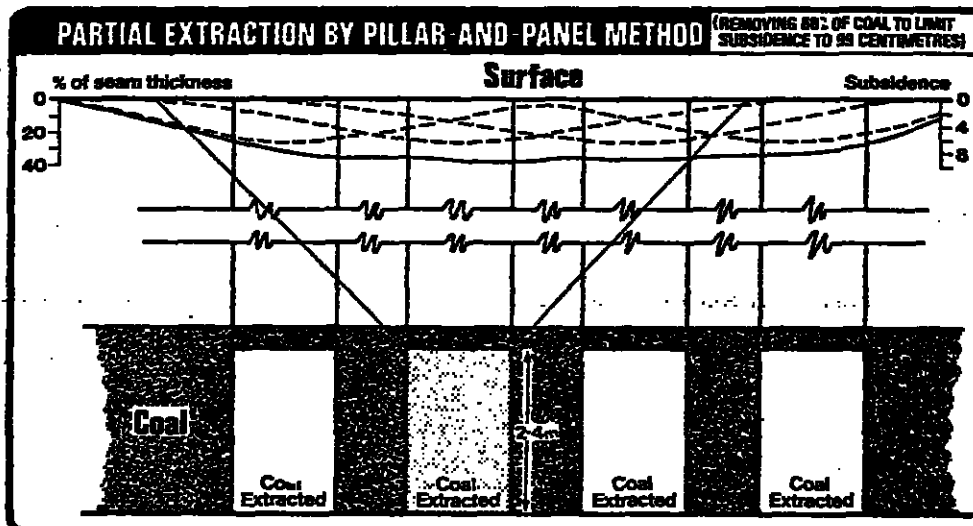
The quality surveyors for the Gascoigne Wood site were Wakeman Trower and Partners, Leeds office, with another Leeds partnership, Faithful and Gould, providing similar services for the five shaft sites associated with the project. Architects for the scheme were Shepherd, Ross and Hickling of Wakefield.

In choosing its own project managers, Atkins says it preferred to pick "the right man of experience" and to "put men before computers rather than stick to management control systems."

Atkins also instructed its design teams to control costs by monitoring them as they were revealed on their drawing boards.

One innovation for which Atkins claims credit concerns insurance for contractors. On winning a contract, engineering companies usually take out their own all-risk policy. In this case, a blanket insurance scheme was worked out by Atkins with a consortium of seven insurers and each contractor had to take out the same insurance contract under identical terms.

Maurice Samuelson



Computers monitor the system

"THE MINES are absolutely stuffed full of microprocessors and sensors," Mr John Blackwood, electrical systems engineer for North Yorkshire, said. The National Coal Board has spent more than £20m on the computer hardware and electronics that are used to monitor and control much of the mines operations.

The heart of the computer system is at Gascoigne Wood where all the coal is extracted. Not only does this system monitor the operations of the drift mine but it can also take information from the individual computers at any one of the five

shaft mines in the coalfield. It can provide management with long-term trends on coal production and the performance and maintenance requirements of the coal-cutting machinery and the conveyors which remove the coal.

The computer system which has been installed by Westinghouse Brake and Signal, part of Hawker Siddeley, runs MINOS software developed by the NCB's own research department. MINOS stands for Mine Operating System. It is basically a set of programmes which can be used to run various aspects of coal mining.

Though MINOS has been introduced in several other mines, it has not been used on such a scale as the Selby project before. Indeed it would be difficult to run all the mining operations such as the starting up of conveyors in the correct sequence without computers, especially as the entire coalfield will employ only 4,000 people.

The complete computer system consists of six control centres—one for each mining site—operating 29 computers linked to a total of 380 outstations for monitoring plant and machinery. At each control centre is an operator console with colour visual display units, DEC PDP 11 computers and Westac telemetry master stations connected to underground stations.

The main functions of the centres are control coal clearance from the working faces to the bunkers and conveyors, control and monitoring of the underground environment and control of fixed plant and other ancillary equipment. The same computer controls both the coal clearance and conveyor controls.

Warnings

The individual control rooms monitor sensors at key points around each mine site. The computers have the ability to turn off equipment or power it, for example, there is a build-up of methane gas. Even before it reaches such a dangerous level, warnings will appear on the visual display units in the control room, and ventilation is increased to remove the problem.

One of the computers at each centre acts as a standby to the three primary systems. Another machine gathers and processes information from the main control system to present local management information such as coal production figures, maintenance schedules, timekeeping and machine failures. All the data gathered at the computer centres at the five shaft mines is also sent to the overall computer management system at Gascoigne Wood.

Even the axial flow fans which provide shaft ventilation are linked to the computer for remote control. The first set of computer-operated fans was installed at Wistow as part of a £2.75m contract won by James

Howden. This includes identical installations at two other shafts. Monitoring devices such as for airflow, pressure, temperature, vibration, fluid levels and pressures, fire detection and actuator position are fitted to each fan and linked to the computer. The fans are fitted with auto-variable pitch mechanisms so that airflow can also be altered by the computer.

Also at the Wistow mine, the NCB ran tests of a computerised stock control and maintenance system which could be expanded to cover all the other Selby sites if it proves successful. In this case the NCB has chosen an IBM computer.

Apart from the central control unit, microprocessors appear in much of the machinery such as the coal face machine which basically consists of a shear which cuts the coal from the seam at the face and at the same time loads it on to a steel conveyor along the face.

Only one operator accompanies the cutter on its run. His main task is to keep the cutter in the coal seam though this can be done automatically with some of the machines. A microprocessor can detect the natural gamma radiation from the rock strata above and below the machine and adjust the cutting head accordingly.

The equipment for one face alone costs about £4m and each of the five mines will have at least four faces. The computer and ancillary equipment totals some £20m.

The 4,000 people that Selby will employ when fully operational is quite a small number considering the total size of the coalfield. Environmental monitoring has therefore become an important factor and Selby is stuffed full of sensors to check for any possible hazards to life through gases and fire. The NCB is proud, and rightly so, of its safety record.

Environmental parameters such as methane, carbon monoxide, smoke, air flow, temperature, humidity, are transmitted to the surface at various mine sites and retransmitted to the Gascoigne Wood drift mine control centre for weekend and holiday periods.

Elaine Williams

Davis Derby

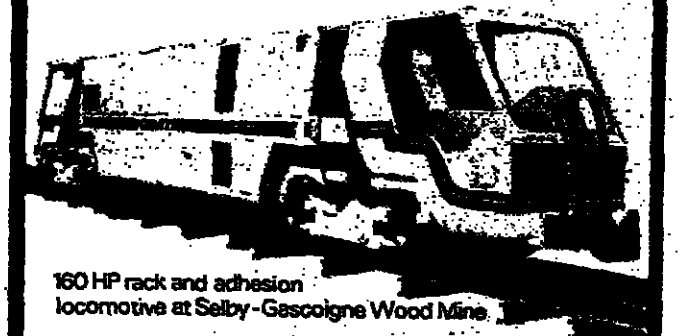


Total Capability

John Davis & Son (Derby) Limited
Atterton Road, Derby DE2 4AB, England
Tel: Derby (0332) 414671 Telex: 37350 Davis G
A Heavy High Technology Company

GMT TRACTION

MOVING MEN AND MATERIALS



160 HP rack and adhesion locomotive at Selby-Gascoigne Wood Mine.

GMT using high technology in rolling stock and locomotives for Britain's coal mines of the future.

GMT

Babcock-Moxey Ltd

suppliers of
Coal Handling Equipment
to the

NATIONAL COAL BOARD

for the Selby Coalfield

CONVEY THEIR CONGRATULATIONS

on the mining of the first

Production Coal



BABCOCK-MOXEY LTD.

Babcock House,
Bristol Road,
Gloucester, GL1 5RT,
Tele: 0452 36531 Telex: 43412

A Babcock International company

MIVAC

flameproof switchgear

chosen exclusively for
the underground supply
system at SELBY

GEC are pleased to have been selected
to supply the MIVAC range of vacuum
flameproof switchgear for the Selby
project and for other important N.C.B.
installations

GEC High Voltage Switchgear Ltd.
PO Box 132, Trafford Park,
Manchester

Financial Times Wednesday October 26 1983

SELBY COAL FIELD VII

Huge efforts have been made to ensure that the surface sites and workings themselves are as unobtrusive as possible

Blending with the landscape

DURING THE public inquiry into the Selby project in 1975, both the Coal Board and the local authorities agreed that it should cause the minimum inconvenience and disturbance to the area and those who live there.

The result is likely to be recognised by future generations as the most self-effacing coalfield ever developed. No ugly mounds of coal or spoil will dominate the landscape or contaminate the air with dust. The winding gear of the five mine shafts, telltale monuments to the coal industry all over the world, will be enclosed in special buildings; the shaft site buildings will be limited to a height of 96 ft, compared with 180 ft in some coalfields; and the coal will all be taken away by rail direct to the power stations.

The buildings around the mine shafts have been developed with the intention of blurring the difference between industrial and non-industrial architecture.

The drift mine site at Gascoigne Wood, which contains the most plant-oriented buildings, such as the bunkers and huge storage shed, has been specially chosen not just because of its proximity to the railway, but also because of its relative remoteness from habitation. Even so, it is partly concealed by landscaped embankments.

Another change, which has already been completed, is the opening of new rail track to divert part of British Rail's East Coast main line from London to York. Without it, the Coal Board would have been unable to mine 70m tonnes of coal which lay below the original stretch of track.

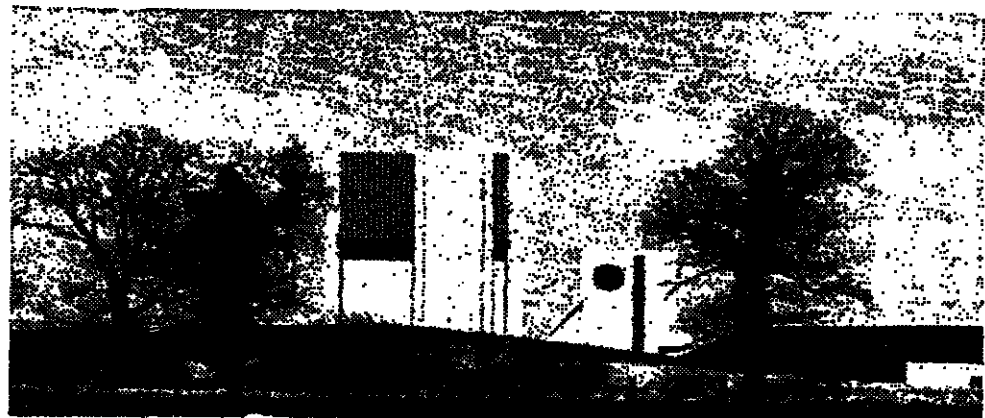
The first length of main line track to be built in Britain this century, it had to have parliamentary approval and cost £60m to build. The Coal Board claims that it is more suitable for high-speed inter-city trains than the stretch it replaced.

All these are minor factors, however, compared with the subsidence which is an inevitable consequence of deep mining. Local people feared it would weaken the fabric of buildings, including the 12th century Selby Abbey, the town's main landmark.

Even more worrying was that of the River Ouse flooding both in the town itself and the rich, flat farmland which covers the coalfield.

The Coal Board therefore accepted the inquiry's ruling that the mining should be carried out in such a way as to limit subsidence to 99 centimetres. This, it said, must be the reasonable maximum which could not be exceeded without the consent of the North Yorkshire councils planning officer.

The Board will limit the subsidence by using the "panel and pillar" method of partial extraction which enables the NCB engineers to achieve a regular pattern of fairly even



Pithead buildings at Wistow, a complete contrast to the stark and ugly buildings at most other pits.

subsidence over a wide area. The pattern will be broken by the pillars of coal which will be left to support special features such as access roads, and the foundations of Selby Abbey. As a result the Coal Board can extract less than half the 600m tonnes available in the coalfield's rich Barnsley seam.

Despite the limitation of subsidence, this still leaves a wide range of problems both for farmers and for the water authorities.

Drainage

Subsidence quickly begins to affect the drainage of fields, causing ponds to collect where they are not wanted, upsetting the existing pattern of drainage and disturbing arterial water courses. New drains cannot be laid out until subsidence is completed, but in the meantime flooding can be counteracted by the installation of pumps, by local drainage boards.

In the Wistow area, five small pumping stations have been designed for installation in the next five years.

But while work in the fields can be delayed until the subsidence is completed, work on river banks has to be carried out in advance of the subsidence so that flooding is prevented.

This means immediate attention to the defences of the River Ouse, Yorkshire's major waterway, which snakes its way through the site of the new coalfield and the centre of Selby town.

The Ouse, with a catchment area of 3,100 sq km as tidal as far inland as York and the level of its bed can rise or fall by

more than 1 metre a year because of silt.

At Selby, the spring tide levels can range between three and 16 feet, compared with a four foot range at York and up to 20 feet at Goole.

The brunt of these problems falls on the Yorkshire Water Authority, which had been trying to strengthen the defences of the Ouse since the 1960s because of an apparent rise in annual tide levels.

Its engineers also draw on 50 years of experience coping with subsidence in the Doncaster mining area which in some places can be up to four metres. The River Don improvement scheme, undertaken over a 20-year period before the Second World War, was the first project of its kind in Britain. The Authority sees the works on the Ouse as a similar challenge.

By the time the Coal Board's application to develop Selby had been submitted in 1974 the Authority's tidal defence works on the Ouse approached Selby town and defences in the town itself had already been raised.

The prospect of the land—and the river banks—being added by another metre meant that the river's defences had to be quickly raised by at least that amount.

The first danger point was in the vicinity of the Wistow mine, where the effects of subsidence will start to be felt in about a year. The Authority will raise the Ouse's banks in this area with silt dredged from the river bed.

In the autumn work will also begin on building a three-metre long blast embankment. This will serve as a second line of

defence should the Ouse flood and immediately upstream from Selby town. The embankment will be up to six metres high in places. Because of mining subsidence the Coal Board will pay for the equivalent of one metre of its thickness.

It will consist of earth and "run-of-mine" material brought from the Wistow mine and take two years to complete. It will cost the Water Authority £3.3m and the Coal Board £1.3m.

The embankment will not only protect two-thirds of the farmland between Wistow and the Ouse but will also prevent Selby town from being flooded from the fields behind it.

Mr Guy Rukin, in charge of the Yorkshire Water Authority's river and land drainage division, says the threat of Selby being flooded had been at the back of his mind for 10 years. By raising the banks in the town centre, the authority had already sealed its front door and the embankment across the fields would now seal its back door as well, he said.

"We would have wanted to build this embankment anyway," he says, "but our minds were concentrated by the start of coal mining and by last year's flooding danger." (Although the river overflowed its banks they were not breached, he stresses.)

Later, further flood defences will be required on the other side of the Ouse when mining starts at Riccall, Stillingfleet and other pits in the Selby field.

Maurice Samuelson

Careful architecture

A CASUAL passer-by could mistake the group of ochre buildings near Wistow, in the Vale of York, for a department of a university or modern research establishment.

The cars are lined up in the forecourt in apple-pie order, and the nearest buildings are

screened with trees and neat grass verges. The only unusual features are some bigger buildings in the rear from which work for the Selby coalfield. But thanks to their pale colouring they neither spoil the skyline nor dominate the flat surrounding landscape.

The buildings at Wistow represent one of the five sites from which miners will descend to work for the Selby coalfield. Others are at Stillingfleet, Riccall, Whitmoor, and North Selby.

A few miles away, at Gascoigne Wood, where the Selby coal reaches the surface and is loaded on to merry-go-round trains to the power stations, the huge storage shed makes a much larger dent in the skyline. But here, too, the effect of the environment has been softened by subdued colourings and contours of the buildings, the sheer remoteness of the site, and the grassy mounds which screen it from a distance.

New standards

Clive Crawford, a 39-year-old Cambridge-trained architect, who has been involved with the design for the Selby project for the eight years, says it sets "a whole series of new standards for the coal industry" and talks of the need to "blur the differences between industrial and other forms of architecture."

Crawford first became involved in the project when working for Sheppard Fidler, of Epsom, in the mid-1970s and took part in the 1975 public inquiry on it.

When he moved to Fletcher Ross and Hickling of Leeds, Crawford retained the responsibility for designing the surface buildings of the five shaft sites. The Gascoigne Wood design work remained with his old firm, now called Atkins, Sheppard Fidler.

In developing architectural design for the buildings on the sites, Mr Crawford says there were two over-riding objectives: ● To generate a series of buildings which in form, silhouette and massing, are reasonably sympathetic to the rural environment.

● To use a limited range of materials and details to apply a similar architectural vocabulary to all the buildings on the sites and achieve a consistent image around the sites.

The designs and layout of the shaft sites represent a compromise between their functions and the demands of their surroundings.

The largest shaft-site building is the friction winder tower located over the downcast shaft at Wistow, and over the upcast

shaft on the other sites. Its height was limited, in the planning consent, to 96 ft 8 in or less.

In designing the friction winding tower, Mr Crawford says he aimed to break up its large volume "to create a building which is interesting both in plan, form and silhouette." The result of this approach is the mixture of flat and pitched roofs and the masonry gable walls contrasting with ribbed aluminium sheeting which are used both on the roofs and for wall cladding.

However, the colours vary considerably from one site to the next. At Wistow and Whitmoor, the masonry consists of the ochre concrete blockwork called Forticrete Yorkshire; at Riccall it is golden brown multi-brickwork; at Stillingfleet smooth red brickwork; at North Selby it is red brown multi-brick work.

The internal layout of the sites—and especially of the amenities buildings—takes account of the miners and surface staff who will use them.

The amenities buildings, Mr Crawford says, are broken down into pavilions of single-storey accommodation, linked by a "communication spine", marking the miner's route from his car to the downcast shaft.

It passes through the "clean" accommodation—offices, canteen, control room and so on—through the bath houses, and then to the "dirty" accommodation, including the lamp room and pithead offices.

In contrast with the shaft site buildings, those at Gascoigne Wood, where fewer than 30 men will work, are predominantly plant-oriented. Atkins Sheppard Fidler (ASF) sought to solve the problems on the 188-acre site by judicious use of landscaping, shape, colour of cladding and by planning routes to ensure that people, coal and vehicles could move about the site and the railway wagons could be serviced, all quite separately without conflicting.

Planning constraints laid down that the buildings could be no higher than 22 metres high; all the spoil from the mine development had to be used for landscaping (the first time this has been done in Britain); and the main stockyard had to be covered.

A key decision, says ASF's Michael Jefferies, was to use only three or four materials throughout the site.

Most of the buildings are clad in plastic-coated metal sheeting and glass reinforced concrete.

Maurice Samuelson

Making the miners' lot a better lot!

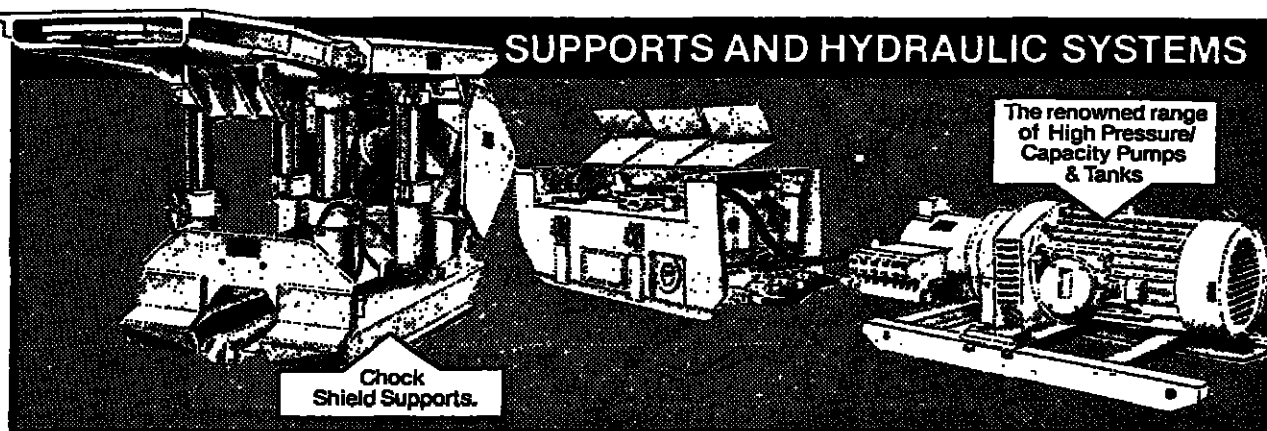


We constructed all of the surface works and buildings for the NCB's new Wistow mine at Selby. Our work was crucial to the rapid development of the project, and we completed the main winder tower (top picture) three months ahead of schedule! The amenities building has certainly made the miners' lot a better lot, as shown by the bath house and canteen interiors.

Sir Alfred McAlpine & SON LTD.

HOOTON · SOUTH WIRRAL · CHESHIRE L66 7ND
Telephone 051-339 4141 · Telex 627185

FSW GROUP



FSW are one of the main suppliers of conveyor drive units to Selby.

A member of The Dobson Park Industries Group

FSW FLETCHER SUTCLIFFE WILD LTD.
Horbury, Wakefield, W.Yorks. WF4 5HR.
Telephone Horbury (0924) 27 6363. Telex 55320

RACKATRACK

Wistow Mine installs Rackatrack Chainless Haulage on A1's & D1's—

THE PROVEN EQUIPMENT
Identical to Kellingley Colliery, Record Holder of National and European weekly output 32,333 tons.

PITCRAFT SUMMIT LTD.
Platts Common Industrial Estate,
Hoyland Nether, Barnsley, S. Yorks.
Telephone Barnsley 744135 (10 lines)
Telex 54554 Pitcraft Barnsley



MARKHAM

On the surface
MINE WINDERS, BRAKES, HEADSHEAVES

Markham are proud to have supplied equipment for the Selby project.

- 3 main shaft friction winders.
- 3 double-drum sinking winders.
- 1 drive head for cable belt main conveyor.
- 2 barrels for reclaimers.
- 1 shaft sinking platform winch.

Markham - the leading name for winders and tunnelling machines since 1872 with unparalleled experience in both.

We look to the future and the greater use of tunnelling in the mines.

Underground
TUNNELLING MACHINES ROADWAY SUPPORTS STOWING MACHINES



Markham & Co Ltd
Broad Oaks Works,
Chatterfield, Derbyshire S41 0DS, U.K.
Telephone: (0246) 76121 Telex: 54263

JOHN BROWN

SELBY COAL FIELD VIII

LONGER STRONGER

BTR SILVERCORD CONVEYOR BELT

BTR's "Silvercord" steel braced conveyor belt in the South Drift at Selby is the longest and strongest in the world. It travels at speeds of 30km per hour over 15km, with a rise of 1000 metres. Carrying loads of 3,200 tonnes an hour up inclines as steep as one in four requires extremely high operational tensions. The specified strength of BTR's Silvercord is 7,000kgs/cm²—a 13% improvement on any other conveyor belt.

The Silvercord belt at Selby was developed in conjunction with Anderson Strathclyde and is part of a comprehensive range of BTR conveyor belting in use throughout the world. BTR is now working on an even longer and stronger Silvercord belt.



BTR Belting Limited
conveying technology worldwide

BTR Belting Limited, P.O. Box 3, Centurion Way, Farlington,
Layland, Preston, Lancashire PR5 2RE
Telephone: 077-44 33751 Telex: 67530 BTRLEY G.

A Member of the BTR Group of Companies

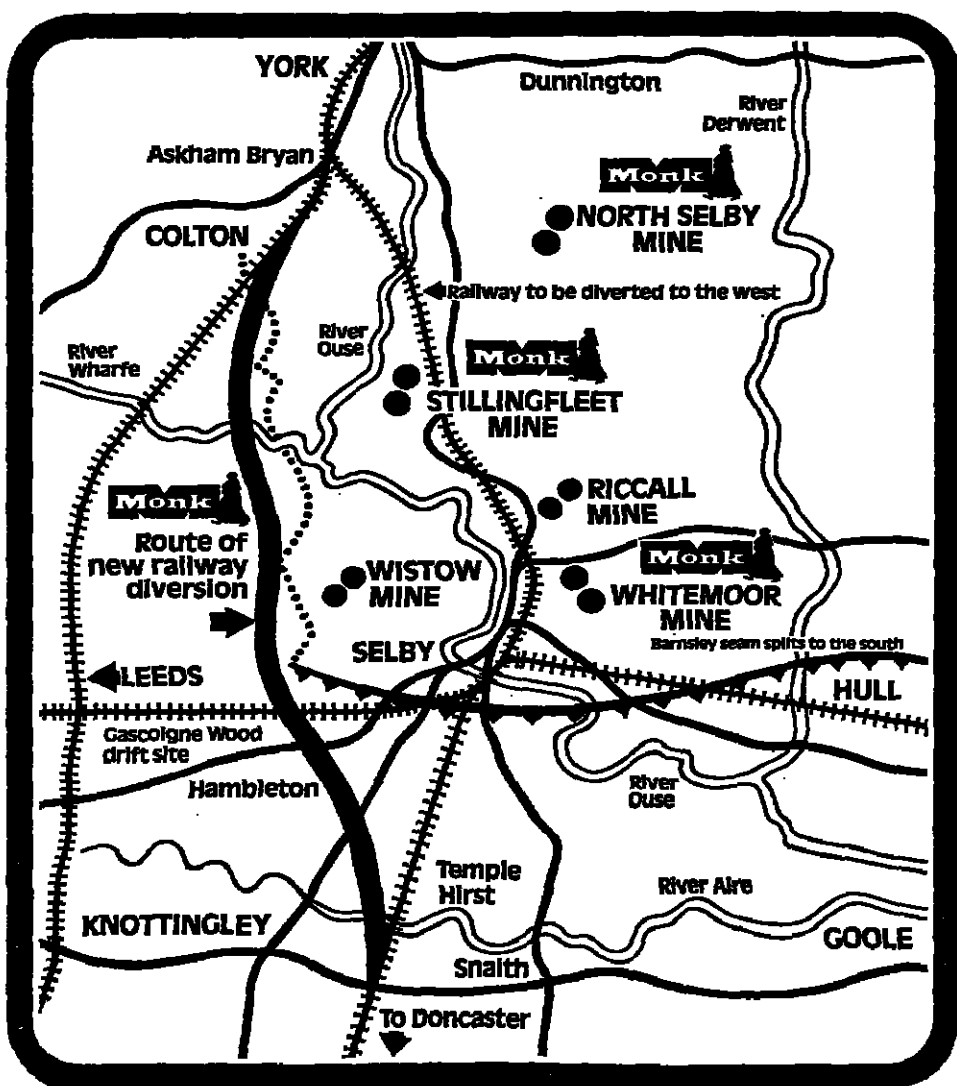
Fuel for thought

In the first major contract for construction of a new main line railway track since 1896, Monk has helped BR to get well away from the mining area of the new Selby coalfield. When it is completed, the two track line will be part of the main high speed route from King's Cross to the North.

22.8 Kilometres in length, the project includes 12 bridges carrying roads over the railway, one bridge carrying the railway over the road, one 3 span bridge over the Selby Canal, a bridge carrying the Leeds-Selby railway line over the new main line, one 26-span viaduct over the River Wharfe, and an 18-span viaduct at Selby Dam.

The whole contract was awarded to Monk and was completed at the end of December 1982.

In addition Monk has carried out the construction of roads and site works for the National Coal Board at three mines in this new coalfield.



A. Monk & Company, p.l.c. Head Office: P.O. Box 43, Warrington, Cheshire WA1 4JB. Tel: Padgate (0925) 812000 Telex: 628293
Areas Offices: Boston Spa, Middlesbrough, Neath, Stamford, Stirling, Tiverton & Warrington.

Solving problems for benefit of the community

THE IMPACT of the mine development on local communities and North Yorkshire's economic infrastructure is one of the imponderables in the whole scheme and one which will only become clear as the 1980s progress.

However, some effects have already emerged and many of the overall benefits and some of the potential problems for which solutions might have to be sought are known.

In a nutshell, the development means new housing programmes, the attraction of some companies to service the NCB project, greater pressure on local authority services—many of which were already earmarked for expansion—a stimulus to shopping and other service trades, and the eventual emergence of miners' dependents for whom new employment will have to be found.

The impact of the development will be minimised by two facts. One is that most of the 4,000 miners who will be working at Selby will come from the older West Yorkshire mining areas around Wakefield, Dewsbury and Leeds, and some of these will keep their homes there. There will be some local recruitment for miners and mining trainees though as well as canteen, secretarial and engineering staff.

The other is that some companies which service the NCB are located in West and South Yorkshire and will not wish to move to North Yorkshire.

Every six months the NCB has been holding a public forum. It has an information centre at Selby and its officials regularly talk to parish councils. This is on top of a series of structural meetings between the Coal Board, local authorities, the water authority and British Rail on environmental issues. Underneath it all too is



The abbey in Selby. The town's population could go up by half, some planners believe

a considerable amount of joint planning on housing requirements between the NCB, local authorities and housing associations.

A research team under Prof Kathleen Jones, head of York University's Department of Social Administration, studied the project for three years but

had its research effectively halted by the Department of the Environment which had commissioned the study. The team appeared to have been moving to the conclusion that local authorities needed the protection of central government in their dealings with the powerful NCB. The research project, however, was scrapped before its views could be tested.

Mr Michael Cuff, North Yorkshire County Council's industrial development officer, says the project will inevitably lead in the long term to a significant increase in the available labour force which will not necessarily be mopped up by the coal field.

"The problem is managing growth in a rural area and coping with the economic well-being of such a big influx of people," he says.

The Coal Board says that up to now it's been "more of a marriage than a take-over" and that's the way it wants it to remain.

Some of the first and most tangible effects of the project are being seen in housing. The NCB and the local authorities have a policy of dispersing the newcomers, though Selby, Sherburn-in-Elmet, and the southern outskirts of York will probably take the biggest concentration of new families.

"Integration" is partially designed to prevent the development of sprawling miners' housing estates as at nearby Knottingley more than 20 years ago.

It is thought that a third of the miners will travel daily from their existing homes outside North Yorkshire though this is expected to decrease gradually. A requirement for 1,000 new homes for renting—split equally between the local authorities and housing associations with some NCB financial assistance—was identified initially.

The Coal Board and the local authorities however were working on the basis that demand was likely to be one privately-owned house for every one for renting. It has so far turned out to be two privately-owned to every one rented. So companies like the house builders Barratts appear to be doing well.

The North Yorkshire structure plan already envisages the building of 3,800 new houses in and around the Selby area between 1977 and 1991 to cope with population changes and altering demand, and 1,500 in the whole of the area from south of York to the north of Doncaster.

Some planners think the population of Selby and the three surrounding parishes—now 20,000—could go up by as much as a half. A new 30,000 sq ft shopping centre has been planned for some time at Selby and there has been a long-term demand for a new library there which is being met. The character of the Selby area may change noticeably.

Some new companies which start up or expand to service the coal field or to use and convert its products may well come to the private 40-acre enterprise park at Sherburn-in-Elmet, and around this centre are already a new J. Bibby animal feed mill, an Elco Power factory and the KwikSave distribution outlet at a nearby plant formerly owned by Avery.

The NCB says some local industries feared that the development would push up wages rather than that has happened so far.

Nick Garnett

Meeting a challenge

PROFILE: TREVOR MASSEY

"I do not know anything more exciting than a team of men at a coalface working right," says Trevor Massey, 46, the mining engineer in direct charge of the Selby development since he was appointed Deputy Area Director (Mining-Selby) in September 1981.

Mr Massey's love of the technical aspects of mining emerges strongly, as does his belief that someone in his position overseeing such a huge project should get out and about as much as possible to where the action is taking place.

As a colliery manager in the 1960s—after gaining a first-class BSc degree at Leeds University—Mr Massey pioneered the high-speed retreat mining system for the NCB.

"In doing any job I have never found a better way than physically getting as much as possible. I have tried to keep as many mornings free as I can to see sites."

"The challenge is to show that with a new mining complex and the management, men and machinery we can do as well as anyone in the world. I like to keep my mind open and believe that we don't know what the ultimate that is achievable really is."

One of his biggest tasks given the size of the project and the number of contractors involved, is to take an overview and see where what he calls the "pinch points" might arise.

"This project is different from managing an area of pits because in routine mining you tend to face repetitive problems. Here we must be prepared to face new problems. From time to time we get very testing periods."

One of them was the flooding crisis which hit Wiston this summer.

Contacts with local communities and their local authorities, and the job of settling people's minds on the impact of the project on the area has been an important part of the work, he says, but he is very much a production man.

Trevor Massey lives in an old manor house with hens and some bees at Hemsworth near Pontefract. But he says he has no hobbies and it is the Selby development which has dominated his life over the past two years.

"My intention is to get the job done, and as quickly, cheaply and efficiently as possible."

M.S.

PROFILE: DEREK ELLIS



Derek Ellis: heading a team of 14 project engineers

As the area deputy chief engineer responsible for Selby, Derek Ellis, 46, is the link between Trevor Massey, the man in charge of the project, and the site representative of the NCB's numerous outside consultants.

In this capacity, Ellis heads a team of 14 NCB project engineers, occasionally taking time off to show the sights to journalists and other authorised visitors.

He enthuses quietly over "the tremendous morale" of all those involved in the development and speaks respectfully about the older Coal Board men who sketched the broad outlines of the scheme more than a decade ago in a flash of joint inspiration.

The son of a North Wales mining family, he left school at 16 to join the Coal Board as one of the first indentured apprentice electricians in his area.

He spent 17 years working underground, combining the first seven with attendance on a day release course at Denbigh College where he collected certificates in electrical, mechanical and mining engineering.

In the mid 1960s he left North Wales for North Nottinghamshire, rising to the post of group engineer for five pits. His next steps, before reaching Selby, were at Kent and at Doncaster.

His career thus ranges from some of Britain's oldest pits to its newest. Not all today's miners can expect the mobility of a qualified professional like Ellis. But it says a lot about the way that Britain's coal industry is evolving, showing that while there is bad news for some miners, there is plenty of good news for others.

N.G.

ELECTRICAL CONTRACTORS TO THE COAL INDUSTRY

N. G. BAILEY & CO. LTD.

Major Projects Group,
Cutler Heights Lane,
Bradford,
West Yorkshire BD4 9JF
Tel: 0274-682856
Telex: 517293

We're Breaking Records at Selby...

December 1980, Stillfleece Mine.
Upcast Shaft - 128.7m of concrete lined shaft
completed in 34 days.

December 1982, Whitmoor Mine.
Upcast Shaft - 131.23m of concrete lined shaft
completed in 31 days.



Thyssen (Great Britain) Ltd.,
Bynea, Llanelli, Dyfed SA14 9SU.
Tel: Llanelli (05542) 2244. Telex: 48194.

INA BEARING TECHNOLOGY KEEPS SELBY MOVING

INA are proud to be associated with Anderson Strathclyde and Cable Belt in the Selby Coalfield project.

INA bearings are used in the main drive of the conveyor system and in the bend pulleys, where performance and reliability are critical

to the operation of the entire installation.

Talk to INA
NEEDLE, BALL, ROLLER & PLAIN BEARINGS

INA BEARING COMPANY LIMITED,
Forge Lane, Minworth, Sutton Colfield,
West Midlands, B76 8AP.
Telephone: 021-351 3833. Telex: 334354.